

10/588,397

FULL ESTIMATED COST

ENTRY      SESSION  
0.21      0.21

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DICTIONARY FILE UPDATES: 15 DEC 2008 HIGHEST RN 1084993-68-9

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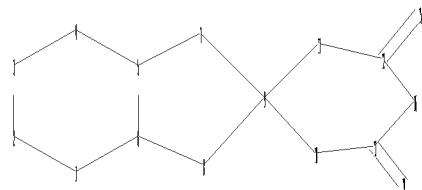
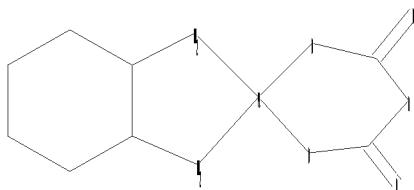
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=>

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chain nodes :

14 15

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 16

chain bonds :

12-15 13-14

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-8 7-9 8-9 9-10 9-11 10-13 11-12 12-16  
13-16

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-8 7-9 8-9 9-10 9-11 10-13 11-12 12-15  
12-16 13-14 13-16

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:Atom

L1            STRUCTURE UPLOADED

=> d his

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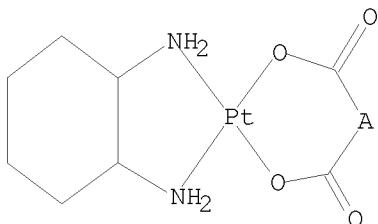
FILE 'REGISTRY' ENTERED AT 22:17:40 ON 16 DEC 2008

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 22:18:01 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 37 TO ITERATE

100.0% PROCESSED 37 ITERATIONS 18 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 376 TO 1104

PROJECTED ANSWERS: 106 TO 614

L2 18 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 22:18:07 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 938 TO ITERATE

100.0% PROCESSED 938 ITERATIONS 374 ANSWERS  
SEARCH TIME: 00.00.01

L3 374 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY

SESSION

178.82

179.03

FILE 'CAPLUS' ENTERED AT 22:18:47 ON 16 DEC 2008

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FILE COVERS 1907 - 16 Dec 2008 VOL 149 ISS 25  
FILE LAST UPDATED: 15 Dec 2008 (20081215/ED)

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=> s 13
L4      216 L3

=> s 14 and py<=2004
      25116910 PY<=2004
L5      199 L4 AND PY<=2004

=> s 13/prep
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      4685946 PREP/RL
L6      108 L3/PREP
      (L3 (L) PREP/RL)

=> s 16 and py<=2004
      25116910 PY<=2004
L7      101 L6 AND PY<=2004

=> s 17 and aliphatic carboxylic acid
      75902 ALIPHATIC
      268979 CARBOXYLIC
      4725289 ACID
      750 ALIPHATIC CARBOXYLIC ACID
      (ALIPHATIC(W)CARBOXYLIC(W)ACID)
L8      0 L7 AND ALIPHATIC CARBOXYLIC ACID

=> s 17 and aromatic sulphonic acid
      251039 AROMATIC
      1889 SULPHONIC
      4725289 ACID
      3 AROMATIC SULPHONIC ACID
      (AROMATIC(W)SULPHONIC(W)ACID)
L9      0 L7 AND AROMATIC SULPHONIC ACID

=> d 17 1-101 bib abs

L7      ANSWER 1 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN
AN      2004:1010893 CAPLUS
DN      142:126560
TI      Carboplatin derivatives with superior antitumor activity compared to the
parent compound
AU      Bernhardt, Guenther; Brunner, Henri; Gruber, Nick; Lottner, Christian;
Pushpan, Simi K.; Tsuno, Takashi; Zabel, Manfred
CS      Institut fuer Pharmazie, Universitaet Regensburg, Germany
SO      Inorganica Chimica Acta (2004), 357(15), 4452-4466
      CODEN: ICHAA3; ISSN: 0020-1693
PB      Elsevier B.V.
```

DT Journal  
LA English  
OS CASREACT 142:126560  
AB A series of new carboplatin derivs. was synthesized by introducing fluoro, chloro, bromo and hydroxy substituents into the cyclobutane ring. The carboxylic acid groups were used for the complexation with platinum(II) fragments bearing two ammonia and (RR/SS)-trans-1,2-diaminocyclohexane ligands, resp., as non-leaving groups. The antiproliferative activity of the new carboplatin analogs differing in the cyclobutanedicarboxylato ligands and the type of platinum fragment were studied in tests with J82 bladder cancer cells and SK-OV-3 as well as cisplatin-resistant NIH:OVCAR-3 ovarian cancer cells. The most active compds. were the 3-fluoro, 3-chloro and 3,3-difluoro derivs. of carboplatin. NMR spectroscopy showed that *cis*-diammine(3-chloro-1,1-cyclobutanedicarboxylato)platinum(II) was hydrolyzed much faster than carboplatin explaining its higher cytostatic activity.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2004:1010892 CAPLUS  
DN 142:147197  
TI Carboplatin-containing porphyrin-platinum complexes as cytotoxic and phototoxic antitumor agents  
AU Brunner, Henri; Gruber, Nick  
CS Institut fuer Anorganische Chemie, Universitaet Regensburg, Regensburg, 93040, Germany  
SO Inorganica Chimica Acta (2004), 357(15), 4423-4451  
CODEN: ICHAA3; ISSN: 0020-1693  
PB Elsevier B.V.  
DT Journal  
LA English  
OS CASREACT 142:147197  
AB Tetraarylporphyrins of the Ar:Ar' = 3:1-type were synthesized from pyrrole, 4-hydroxybenzaldehyde and benzaldehydes substituted with ethyleneglycol, hydroxy and quaternary ammonium substituents for solubilization in DMF and, in particular, in H<sub>2</sub>O. After etherification with the tosylate of di-Et cyclobutanedicarboxylate and subsequent ester hydrolysis, the resulting carboxylic acid groups were used to bind Pt fragments bearing two NH<sub>3</sub> and (RR/SS)-trans-1,2-diaminocyclohexane ligands, resp., as nonleaving groups. In comparison to hematoporphyrin-Pt complexes, the title compds. show a 30. bathochromic shift of their absorption bands increasing the penetration depth of the red light used for irradiation in photodynamic tumor therapy. The antiproliferative activity of 24 new Pt complexes differing in the porphyrin ligands and the Pt fragments were studied in tests with J82 bladder cancer cells. The compds. showed the cytotoxic effect of the Pt moiety and after irradiation the phototoxic effect of the porphyrin system.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2004:996194 CAPLUS  
DN 141:419811  
TI Carboplatin-type platinum(II) complexes and their antitumor activity  
IN Brunner, Henri; Gruber, Nick  
PA Universitaet Regensburg, Germany  
SO PCT Int. Appl., 46 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004099224	A1	20041118	WO 2004-EP4680	20040503 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	DE 10351021	A1	20041125	DE 2003-10351021	20031031 <--
	DE 2003-10320222	A	20030505		
	DE 2003-10351021	A	20031031		
OS	MARPAT 141:419811				
AB	The invention relates to carboplatinum derivs. PtL(NH <sub>3</sub> ) <sub>2</sub> and PtLL1 (H <sub>2</sub> L = 3-chloro and 3-hydroxycyclobutane-1,1-dicarboxylic acid; L1 = trans-1,2-cyclohexanediamine), medicaments containing said derivs. and to the use of the carboplatinum derivs. in the production of medicaments for tumor therapy. For example, PtL(NH <sub>3</sub> ) <sub>2</sub> (H <sub>2</sub> L = 3-chlorocyclobutane-1,1-dicarboxylic acid) was prepared by the reaction of H <sub>2</sub> L and [Pt(NH <sub>3</sub> ) <sub>2</sub> (H <sub>2</sub> O) <sub>2</sub> ](OH) <sub>2</sub> in 50% yield.				
RE.CNT	2	THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L7 ANSWER 4 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2004:885946 CAPLUS  
DN 142:79772  
TI Synthesis and Biological Activity of Water-Soluble Maleimide Derivatives of the Anticancer Drug Carboplatin Designed as Albumin-Binding Prodrugs  
AU Warnecke, Andre; Fichtner, Iduna; Garmann, Dirk; Jaehde, Ulrich; Kratz, Felix  
CS Tumor Biology Center, Freiburg, 79106, Germany  
SO Bioconjugate Chemistry (2004), 15(6), 1349-1359  
CODEN: BCCHE; ISSN: 1043-1802  
PB American Chemical Society  
DT Journal  
LA English  
AB Four platinum(II) complexes were synthesized by reacting either [Pt trans-DACH](NO<sub>3</sub>)<sub>2</sub> with a 6-maleimidocaproic acid, a 15-maleimido-4,7,10,13-tetroxapentadecanoic acid, and a 6-maleimido-4-oxacaproic ester derivative of cyclobutane-1,1-dicarboxylic acid (CBDA) or [Pt(NH<sub>3</sub>)<sub>2</sub>](NO<sub>3</sub>)<sub>2</sub> with a 6-maleimido-4-oxacaproic ester derivative of CBDA. Both complexes containing the 6-maleimido-4-oxacaproic ester showed good water solubility ( $\geq$  8 mg/mL) and CE expts. revealed rapid binding to human serum albumin and the formation of biadducts with dGMP and dAMP. In the MaTu xenograft model in nude mice, both complexes showed an improved antitumor effect at their maximum tolerated dose (2 + 50 mg/kg carboplatin equivalent) compared to therapy with carboplatin at equimolar dose or at its optimal dose (2 + 75 mg/kg).  
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

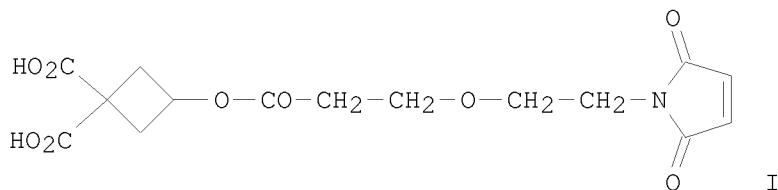
L7 ANSWER 5 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2004:800798 CAPLUS  
DN 141:288132  
TI Protein-binding derivatives of platinum complexes with cyclobutane-1,1-dicarboxylate ligands.  
IN Kratz, Felix; Warnecke, Andre

PA KTB Tumorforschungsgesellschaft MbH, Germany  
SO Ger. Offen., 13 pp.  
CODEN: GWXXBX

DT Patent  
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10314780	A1	20040930	DE 2003-10314780	20030319 <--
	WO 2004083223	A1	20040930	WO 2004-EP2850	20040318 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1603930	A1	20051214	EP 2004-721530	20040318
	EP 1603930	B1	20070829		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	JP 2006520360	T	20060907	JP 2006-504734	20040318
	AT 371664	T	20070915	AT 2004-721530	20040318
	US 20060089341	A1	20060427	US 2005-549311	20050916
	US 7141691	B2	20061128		
PRAI	DE 2003-10314780	A	20030319		
	WO 2004-EP2850	W	20040318		
OS	MARPAT 141:288132				
GI					



AB The invention concerns low mol. Pt complexes with cyclobutane-1,1-dicarboxylate ligands, which contains a protein-binding group as an antitumor agent for human breast cancer. For example, PtLL1 (H2L = I; L1 = trans-1,2-cyclohexanediamine) was prepared in 61 % yield in a multistep process starting from bis(4-methoxybenzyl)malonate and 1,3-dibromo-2-tert-butyldimethylsiloxypropane. The Pt complexes of cyclobutane-1,1-dicarboxylate having a protein-binding group were tested as antitumor agents for human breast cancer.

L7 ANSWER 6 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2004:581046 CAPLUS

DN 141:260980

TI The  $\beta$ -glucuronyl-based prodrug strategy allows for its application on  $\beta$ -glucuronyl-platinum conjugates

AU Tromp, Reynier A.; van Boom, Stella S. G. E.; Timmers, C. Marco; van Zutphen, Steven; van der Marel, Gijsbert A.; Overkleef, Herman S.; van Boom, Jacques H.; Reedijk, Jan

CS Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University,  
RA Leiden, 2300, Neth.  
SO Bioorganic & Medicinal Chemistry Letters (2004), 14(16),  
4273-4276  
CODEN: BMCLE8; ISSN: 0960-894X  
PB Elsevier Science B.V.  
DT Journal  
LA English  
OS CASREACT 141:260980  
AB The use of platinum drugs in antitumor therapy is well established. An important drawback of these chemotherapeutics is the lack of selectivity for tumor cells, usually resulting in severe toxic side effects. A glucuronyl-platinum conjugate was designed and synthesized to test the compatibility of platinum compds. with  $\beta$ -glucuronidase-based prodrug therapy. Instantaneous cleavage of the  $\beta$ -glucuronic bond in the glucuronyl-platinum conjugate was observed upon addition of  $\beta$ -glucuronidase resulting in PtII(dach)(4-hydroxybenzylmalonate) and glucuronic acid.  
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2003:645226 CAPLUS  
DN 139:328130  
TI Synthesis, characterization and preliminary cytotoxicity assays of poly(ethylene glycol)-malonato-Pt-DACH conjugates  
AU Furin, Alessia; Guiotto, Andrea; Baccichetti, Franca; Pasut, Gianfranco;  
Deuschel, Christine; Bertani, Roberta; Veronese, Francesco M.  
CS Dipartimento di Scienze Farmaceutiche, Universita' degli Studi di Padova,  
Padua, 5-35100, Italy  
SO European Journal of Medicinal Chemistry (2003), 38(7-8), 739-749  
CODEN: EJMCA5; ISSN: 0223-5234  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
AB Oxalate 1,2-diaminocyclohexane platinum (oxaliplatin), a successfully employed platinum compound belonging to the family of Pt-DACH complexes, has been conjugated to different mol. weight poly(ethylene glycols) (PEG) by means of peptide spacers and a malonic acid bidentate residue. Tri- and tetrapeptidic substrates of lysosomal enzymes were used in order to increase the release of Pt-DACH complex inside the cell following endocytosis and enzymic degradation of the peptide spacer. Other amino acids (e.g. norleucine) have been also employed.  $^1\text{H}$ -NMR of some conjugates was performed as characterization of the product, while  $^{195}\text{Pt}$ -NMR anal. was carried out to detect the rearrangement of the platinum complex from the Pt(O,O) to the Pt(O,N) form. The compound PEG(5000)-Nle-malonato-Pt-DACH (4) has been tested against L1210-implanted mice and showed an appreciable increase in cytotoxicity as compared to the reference standard Cl2PtDACH.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2003:638706 CAPLUS  
DN 140:138829  
TI Tamoxifen derivatives for delivery of the antitumoral (DACH)Pt group:  
Selective synthesis by McMurry coupling, and biochemical behaviour  
AU Top, Siden; El Bachir, Kaloun; Vessieres, Anne; Leclercq, Guy; Laios,  
Ioanna; Ourevitch, Michele; Deuschel, Christine; McGlinchey, Michael J.;  
Jaouen, Gerard  
CS Laboratoire de Chimie Organometallique UMR CNRS 7576 Ecole Nationale  
Superieure de Chimie de Paris, Paris, 75231/05, Fr.  
SO ChemBioChem (2003), 4(8), 754-761

PB CODEN: CBCHX; ISSN: 1439-4227  
 DT Wiley-VCH Verlag GmbH & Co. KGaA  
 LA Journal  
 English

AB The goal of our study was to potentiate the effects of the ((R,R)-trans-1,2-diaminocyclohexane)platinum(II) fragment [(DACH)Pt], known for its cytotoxic properties, either with tamoxifen (Tam), the most widely used antiestrogen in the treatment of hormone-dependent breast cancers, or with its active metabolite hydroxy-tamoxifen (hydroxy-Tam). We coupled Tam or hydroxy-Tam derivs. bearing a malonato group at the para position of the  $\beta$  aromatic ring with the (DACH)Pt fragment. The malonato-Tam and malonato-hydroxy-Tam compds. were prepared through McMurry coupling of the appropriate ketones. The presence of the malonate group resulted in a pronounced stereospecificity in the reaction, since malonato-Tam was obtained only as the Z isomer, while malonato-hydroxy-Tam was obtained as an 80/20 E/Z mixture. Attribution of the isomeric structures was achieved by 2D NMR spectroscopy. The platinum complexes (DACH)Pt-malonato-Tam and (DACH)Pt-malonato-hydroxy-Tam were then prepared by coupling the barium salts derived from the malonato-Tam and malonato-hydroxy-Tam with the nitrate derived from (DACH)PtCl<sub>2</sub>. Study of the biochem. properties of these two platinum complexes showed that, while the hydroxy-Tam complex is satisfactorily recognized by the estrogen receptor (relative binding affinity, RBA = 6.4%), the Tam complex is less well recognized (RBA = 0.5%). The effects of these complexes on two hormone-dependent breast cancer cell lines (MCF7 and MVLN) were studied in vitro. Both complexes showed an antiproliferative effect on MCF7 cells, and an antiestrogenic effect on MVLN cells. The observed effects appear to be essentially antihormonal, since incorporation of the (DACH)Pt fragment into the tamoxifen skeleton did not cause an increase in the cytotoxicity of the complexes.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 2003:610452 CAPLUS  
 DN 139:159041

TI Preparation of novel, water-soluble porphyrin platinum amine compounds with high tumor selectivity and their use for the treatment of benign and malignant tumor diseases

IN Bart, Karl-Christian; Bernhardt, Guenther; Brunner, Henri; Lottner, Christian

PA Zentaris A.-G., Germany; Zentaris GmbH

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003064424	A2	20030807	WO 2003-EP874	20030129 <--
	WO 2003064424	A3	20040115		
	W: AU, BR, BY, CA, CN, CO, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LT, LV, MK, MX, NO, NZ, PH, PL, RO, RU, SG, UA, UZ, YU, ZA RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
	US 20040023942	A1	20040205	US 2003-353788	20030127 <--
	US 7087214	B2	20060808		
	EP 1470139	A2	20041027	EP 2003-734604	20030129 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003007400	A	20041221	BR 2003-7400	20030129 <--

CN 1639178	A	20050713	CN 2003-804552	20030129
CN 1303090	C	20070307		
JP 2005522429	T	20050728	JP 2003-564047	20030129
NZ 534541	A	20051028	NZ 2003-534541	20030129
CA 2418410	A1	20030801	CA 2003-2418410	20030203 <--
TW 233929	B	20050611	TW 2003-92102414	20030206
ZA 2004005925	A	20040907	ZA 2004-5925	20040726 <--
IN 2004KN01063	A	20051230	IN 2004-KN1063	20040727
MX 2004PA07443	A	20041011	MX 2004-PA7443	20040730 <--
NO 2004003650	A	20041029	NO 2004-3650	20040831 <--
HK 1078585	A1	20071026	HK 2005-110413	20051118
PRAI US 2002-353585P	P	20020201		
WO 2003-EP874	W	20030129		
OS MARPAT 139:159041				
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to the preparation of novel, water-soluble porphyrin platinum compds. of the tetraarylporphyrin platinum type or of the hematoporphyrin platinum type in which a platinum diamine is bonded to pendant arm/arms of the porphyrin. with high tumor selectivity and their use for the treatment of benign and malignant tumor diseases. These compds. have high tumor selectivity and are proposed for use in the treatment of benign and malignant tumor diseases. In particular, the compds. are suitable for photodynamic antitumor therapy. Thus, the tetraarylporphyrin platinum complex (I) and the hematoporphyrin platinum complex (II) and related complexes were prepared and cytotoxic/phototoxic antiproliferative activity against model bladder cancer cell lines TCC-SUP and J82 measured.

L7 ANSWER 10 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 2003:560856 CAPLUS  
 DN 140:246053  
 TI Synthesis and antitumor activity of novel thermosensitive platinum(II)-cyclotriphosphazene conjugates  
 AU Song, Soo-Chang; Lee, Sang Beom; Lee, Bae Hoon; Ha, Hyung-Wook; Lee, Kyung-Tae; Sohn, Youn Soo  
 CS Division of Life Science, Korea Institute of Science & Technology, Seoul, 130-650, S. Korea  
 SO Journal of Controlled Release (2003), 90(3), 303-311  
 CODEN: JCREEC; ISSN: 0168-3659

PB Elsevier Science Ltd.

DT Journal

LA English

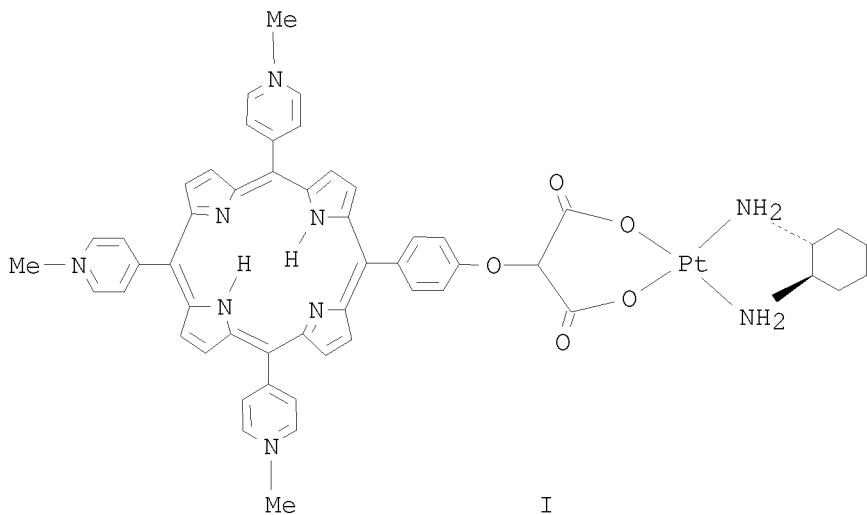
OS CASREACT 140:246053

AB Thermosensitive cyclotriphosphazenes bearing alkoxy poly(ethylene glycol) and amino acid esters as side groups could be functionalized to chelate the antitumor (diamine)platinum(II) moiety through the dicarboxylate group of the amino acid substituent on the cyclic phosphazene ring. Surprisingly, like the precursor cyclotriphosphazenes, these (diamine)platinum(II)-cyclotriphosphazene conjugates were also found to exhibit variable lower critical solution temps. (LCST) in the wide range of 12 to 92°. Furthermore, the present conjugates have shown outstanding in vitro and in vivo antitumor activities due to controlled release of the antitumor (diamine)platinum(II) moiety with hydrolytic degradation of the phosphazene ring. A few of these conjugates have shown LCSTs below body temperature, and it has been shown from a model animal experiment that the conjugates

with a LCST below body temperature may be applied to local drug delivery by direct intratumoral injection.

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2003:91150 CAPLUS  
DN 138:394843  
TI Synthesis and antitumor activity of DNA binding cationic porphyrin-platinum(II) complexes  
AU Song, Rita; Kim, Yeong-Sang; Lee, Chong Ock; Sohn, Youn Soo  
CS Division of Life Sciences, Korea Institute of Science and Technology,  
Seoul, 136-791, S. Korea  
SO Tetrahedron Letters (2003), 44(8), 1537-1540  
CODEN: TELEAY; ISSN: 0040-4039  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
OS CASREACT 138:394843  
GI



AB 5,10,15-Tris(N-methyl-4-pyridiniumyl)porphyrin-linked platinum(II) (TrisMPyP)-Pt(II) conjugates were synthesized, in which different spacer ligands were used for appropriate coordination to Pt(II) complexes. Platinum(II) diamminocyclohexane conjugate complex I (9b) exhibited *in vivo* antitumor activity (T/C%, 294) superior to cisplatin (T/C%, 184) against the leukemia L1210 animal cell line.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

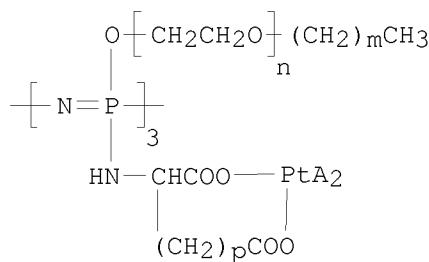
L7 ANSWER 12 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2002:287559 CAPLUS  
DN 137:27380  
TI Soluble Tetraarylporphyrin-Platinum Conjugates as Cytotoxic and Phototoxic Antitumor Agents  
AU Lottner, Christian; Bart, Karl-Christian; Bernhardt, Guenther; Brunner, Henri  
CS Institut fuer Anorganische Chemie and Institut fuer Pharmazie,

SO Universitaet Regensburg, Regensburg, 93040, Germany  
 SO Journal of Medicinal Chemistry (2002), 45(10), 2079-2089  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 137:27380  
 AB Asym. tetraarylporphyrins were synthesized from pyrrole, para-substituted oligo- or poly(ethylene glycol) monomethyl ether benzaldehyde and from 4-hydroxybenzaldehyde etherified with di-Et bromomalonate according to the Lindsey method. After hydrolysis of the tetraarylporphyrin esters, the resulting carboxylic acid groups were used to bind Pt fragments. In comparison to analogous hematoporphyrin-Pt conjugates, the title compds. were characterized by a 30. bathochromic shift of their absorption bands. The antiproliferative activity of 18 Pt complexes (1, 5, and 10  $\mu$ M) differing in solubility, type of the Pt fragment, and the corresponding tetraarylporphyrin ligands were studied on TCC-SUP transitional bladder cancer cells in the dark and after irradiation ( $\lambda = 600\text{-}730$  nm; 24 J/cm<sup>2</sup>). The most active compds. were among the tetraarylporphyrin-Pt conjugates bearing the diammine and (RR/SS)-trans-1,2-diaminocyclohexane ligands.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7	ANSWER 13 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN			
AN	2001:933115 CAPLUS			
DN	136:63184			
TI	Preparation of thermosensitive cyclotriphosphazene-platinum complex conjugate for use as anticancer agent			
IN	Sohn, Youn Soo; Song, Soo-chang; Lee, Sang Beom			
PA	Korea Institute of Science and Technology, S. Korea			
SO	U.S., 10 pp. CODEN: USXXAM			
DT	Patent			
LA	English			
FAN.CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.
PI	US 6333422	B1	20011225	US 2001-771716
	KR 2002015180	A	20020227	KR 2000-48360
	CA 2388334	A1	20020228	CA 2001-2388334
	CA 2388334	C	20060620	
	WO 2002016376	A1	20020228	WO 2001-KR33
				20010110 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 2001027130	A	20020304	AU 2001-27130
	AU 781233	B2	20050512	
	EP 1311519	A1	20030521	EP 2001-901579
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			20010110 <--
	JP 2004506739	T	20040304	JP 2002-521473
	JP 3677269	B2	20050727	
	CN 1195766	C	20050406	CN 2001-802468
PRAI	KR 2000-48360	A	20000821	20010110
	WO 2001-KR33	W	20010110	
OS	CASREACT 136:63184; MARPAT 136:63184			

GI



I

AB The preparation is described for novel thermosensitive cyclotriphosphazene-platinum complex conjugates (I), wherein n is a repeating unit of poly(alkoxyethylene glycol) selected from the integers 2, 7 and 12; m represents the length of the alkyl chain selected from the integers 0, 1, 2 and 3; p represents the length of the anionic amino acid residue selected from the integers 0 (amino malonic acid derivs.), 1 (aspartic acid derivs.) and 2 (glutamic acid derivs.); A2 is a bidentate chelating diamine selected from the group consisting of 2,2-dimethyl-1,3-propanediamine (dmpda), trans(±)-1,2-diaminocyclohexane (dach) and 1,1-di(aminomethyl)cyclohexane (dmach).

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 14 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2001:380595 CAPLUS  
DN 134:371817  
TI Pharmaceuticals containing diaminoplatinum (II) antitumor complexes  
IN Uckun, Fatih M.; Narla, Rama K.  
PA Parker Hughes Institute, USA  
SO PCT Int. Appl., 45 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001036431	A1	20010525	WO 2000-US31297	20001115 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 20030176410	A1	20030918	US 2002-146971	20020515 <--
	US 6737537	B2	20040518		
PRAI	US 1999-165652P	P	19991115		
	WO 2000-US31297	A1	20001115		
OS	MARPAT 134:371817				
AB	The present invention describes diaminoplatinum (II) compds. and compns. useful for treating a subject with a tumor and/or inducing apoptosis in a population of cells. The present invention also describes pharmaceutical compns. containing the compds. in combination with an acceptable carrier. Addnl., the invention further provides a method of inducing apoptosis in a				

population of cells and a method of treating a subject with a tumor, wherein the method comprises administering to the subject a therapeutically effective amount of the aforementioned compds. or compns. Tablet contained a diaminoplatinum complex 100.0, lactose 77.5, Povidone 15.0, Croscarmellose sodium 12.0, microcryst. cellulose 92.5, and Mg stearate 3.0 mg/tablet. The platinum complex showed antitumor activity against acute lymphoblastic leukemia cells.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2000:894147 CAPLUS  
DN 134:231498  
TI Synthesis and antitumor activity of cyclotriphosphazene-(diamine)platinum(II) conjugates  
AU Baek, Hyounggee; Cho, Yangha; Lee, Chong Ok; Sohn, Youn Soo  
CS Inorganic Chemistry Laboratory, Korea Institute of Science and Technology, Seoul, 130-650, S. Korea  
SO Anti-Cancer Drugs (2000), 11(9), 715-725  
CODEN: ANTDEV; ISSN: 0959-4973  
PB Lippincott Williams & Wilkins  
DT Journal  
LA English  
OS CASREACT 134:231498  
AB A new class of water-soluble cyclotriphosphazene-(diamine)platinum(II) conjugate drugs [NP(Am·Li2)(Am·PtA2)]3 (Am: dicarboxylic amino acid; A2: diamine) has been synthesized and characterized by elemental anal., multinuclear (1H, 31P, 13C, 195Pt) NMR and IR spectroscopies. All the title compds. were subjected to both in vitro and in vivo assays against the murine leukemia L 1210 cell line and selected human tumor cells. Most of the title compds. have shown higher in vivo antitumor activity than cisplatin and carboplatin, and, in particular, {NP(L-Glu·Li2)[L-Glu·Pt(-dach)]3} (Glu=glutamate, dach=trans(±)-1,2-diminocyclohexane) showed extraordinary high activity (ILS>500%) equally against both parent and cisplatin-resistant leukemia L 1210 cell lines. Furthermore, this candidate compound (KI 60606) exhibited a wider spectrum of in vitro activity by showing higher cytotoxicity against all the selected human tumor cells than cisplatin and, therefore, was subjected to preclin. studies which are now near completion.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

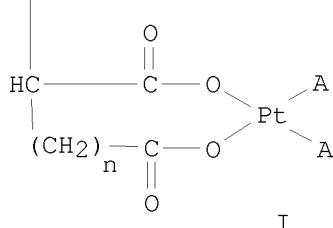
L7 ANSWER 16 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 2000:707175 CAPLUS  
DN 133:290337  
TI Platinum complex conjugated to cyclotriphosphazene, its preparation, and anticancer agent comprising the same  
IN Sohn, Youn Soo; Baek, Hyoung Gee; Lee, Chong Ok  
PA Korea Institute of Science and Technology, S. Korea; Il-Yang Pharm. Co., Ltd.  
SO PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000058321	A1	20001005	WO 1999-KR771	19991214 <--
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	KR 2000061478	A	20001025	KR 1999-10532	19990326 <--

CA 2323140 A1 20001005 CA 1999-2323140 19991214 <--  
 EP 1082331 A1 20010314 EP 1999-959983 19991214 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 JP 2002540212 T 20021126 JP 2000-608021 19991214 <--  
 US 6221906 B1 20010424 US 2000-517718 20000302 <--  
 PRAI KR 1999-10532 A 19990326  
 WO 1999-KR771 W 19991214  
 OS MARPAT 133:290337  
 GI

[N<sub>3</sub>P<sub>3</sub>(NH)<sub>6</sub>?X(R)<sub>x</sub>]



**AB** The present invention relates to platinum complexes conjugated to a cyclotriphosphazene, I [R = solubilizing agent selected from MeNH<sub>2</sub>, MeO, and amino acid; A = NH<sub>3</sub> or A<sub>2</sub> = bidentate chelating diamine selected from NH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> (en), 2,2-dimethyl-1,3-propanediamine (dmpda), 2,2-bis(aminomethyl)-1,3-propanediol (bampd), trans-(±)-1,2-diaminocyclohexane], and a method for their preparation. The Pt complexes can be used as an anticancer agent. Thus, the oligomeric platinum complex is prepared by (1) substitution of hexachlorocyclotriphosphazene with a solubilizing agent and a dicarboxylic amino acid derivative as spacer, and (2) conjugation of the platinum complex to the spacer group. The oligomer platinum complexes have a lower toxicity (mouse LD<sub>50</sub> = 125-250 mg/kg) compared to cisplatin (LD<sub>50</sub> = 13 mg/kg), a higher anticancer activity (ILS(%) ≥ 500), and it does not exhibit anaphylactic reaction, unlike polymeric platinum complexes developed previously by the present inventors. Also, the claimed compds. exhibit a wider spectrum of activity in that it shows high anticancer activity to non-small cell lung cancer that is not cured by cisplatin-based regimens.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 17 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1999:17755 CAPLUS  
 DN 130:162256  
 TI Linkage Isomerism Dependent on Solvent and Temperature. Synthesis and Structural Properties of Diamineplatinum(II) Complexes of Allyl- and Diallylmalonate Ligands  
 AU Lee, Young-A.; Chung, Young Keun; Sohn, Youn Soo  
 CS Inorganic Chemistry Laboratory, Korea Institute of Science and Technology, Seoul, 130-650, S. Korea  
 SO Inorganic Chemistry (1999), 38(3), 531-537  
 CODEN: INOCAJ; ISSN: 0020-1669  
 PB American Chemical Society  
 DT Journal  
 LA English  
 AB The linkage isomerism between (O,O')- and (O,alkene)-chelates was studied for the complexes A<sub>2</sub>PtL<sub>2</sub> (A<sub>2</sub> = 2,2-dimethyl-1,3-propanediamine (DMPDA), trans-(±)-1,2-diaminocyclohexane (DACH); L<sub>2</sub> = allylmalonate (AM),

diallylmalonate (DAM)). The crystal structures of (DMPDA)Pt(AM)·2H<sub>2</sub>O (tetragonal space group P42/m, *a* 13.614(3), *b* 13.614(3), *c* 8.451(4) Å, *Z* = 4, *R* = 0.0472) and (DMPDA)Pt(DAM)·2H<sub>2</sub>O (monoclinic space group P21/n, *a* 11.021(3), *b* 8.996(2), *c* 18.765(7) Å,  $\beta$  106.92(3) $^\circ$ , *Z* = 4, *R* = 0.0531) were solved. Each platinum atom adopts a typical square planar arrangement with two nitrogen atoms in *cis* positions. However, surprisingly, the AM anionic ligand is coordinated to the platinum atom via (O,O')-chelation mode through its two carboxylate groups with the alkene group uncoordinated in the solid state, breaking the hard/soft rule. The tetradeinate DAM ligand is chelated to the platinum atom through one carboxylate and one alkene group resulting in the (O,alkene)-chelation mode with another uncoordinated carboxylate and alkene group. Multinuclear (1H, 13C, and 195Pt) NMR studies clearly disclose that the linkage isomerism depends on the solvents employed. Both allyl- and diallylmalonate ligands are chelated exclusively to the platinum(II) atom via (O,O')-mode in DMF or Me<sub>2</sub>SO solution whereas only (O,alkene)-chelation mode is observed in an aqueous solution. At room temperature, the complexes both of the AM and DAM ligands exist in methanol as a mixture of (O,O')- and (O,alkene)-modes. Also, interconversion between the two isomers occurs reversibly depending on temperature: the (O,alkene)-chelate is predominant at low temps. while the (O,O')-chelate is favorable at elevated temps.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7	ANSWER 18 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN			
AN	1998:542949 CAPLUS			
DN	129:180135			
OREF	129:36505a, 36508a			
TI	Lipid complexes and liposomes of highly insoluble platinum complexes			
IN	Cherian, Mathew			
PA	Pharmacia & Upjohn Company, USA			
SO	PCT Int. Appl., 20 pp. CODEN: PIXXD2			
DT	Patent			
LA	English			
FAN.CNT	1			
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9833481	A1	19980806	WO 1998-US35	19980128 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2279279	A1	19980806	CA 1998-2279279	19980128 <--
CA 2279279	C	20081014		
AU 9860154	A	19980825	AU 1998-60154	19980128 <--
AU 749220	B2	20020620		
EP 975329	A1	20000202	EP 1998-903358	19980128 <--
EP 975329	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
HU 2000001266	A2	20001128	HU 2000-1266	19980128 <--
HU 2000001266	A3	20010228		
NZ 337502	A	20010223	NZ 1998-337502	19980128 <--
BR 9815445	A	20010925	BR 1998-15445	19980128 <--

JP 2002513396	T	20020508	JP 1998-532884	19980128 <--
CN 1096263	C	20021218	CN 1998-807276	19980128 <--
IL 131008	A	20030624	IL 1998-131008	19980128 <--
AT 284204	T	20041215	AT 1998-903358	19980128 <--
PT 975329	T	20050331	PT 1998-903358	19980128
ES 2234094	T3	20050616	ES 1998-903358	19980128
PL 192633	B1	20061130	PL 1998-334940	19980128
US 20010010822	A1	20010802	US 1999-341988	19990721 <--
US 6287593	B2	20010911		
MX 9907110	A	20000630	MX 1999-7110	19990730 <--
NO 9903750	A	19990803	NO 1999-3750	19990803 <--
HK 1029059	A1	20030627	HK 2000-108452	20001228 <--
HK 1054201	A1	20050909	HK 2003-106511	20030911
PRAI US 1997-37377P	P	19970205		
WO 1998-US35	W	19980128		

OS MARPAT 129:180135

AB A pharmaceutical composition comprising a lipid complex or a liposome of a phospholipid and a water-insol. platinum dicarboxylate and method for the preparation of such compns. are described. Diaminocyclohexane platinum malonate (I) was prepared in a lipids solution containing dimyristoylphosphatidylcholine and dimyristoylphosphatidylglycerol to give a lipid complex suspension. The antitumor activity of I was studied.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 19 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1997:779851 CAPLUS

DN 128:110499

OREF 128:21517a,21520a

TI Synthesis and antitumor activity of (diamine)platinum(II) complexes of benzylmalonate derivatives

AU Lee, Young-A.; Chung, Young Keun; Sohn, Youn Soo

CS Inorganic Chemistry Laboratory, Korea Institute of Science and Technology, Seoul, 130-650, S. Korea

SO Journal of Inorganic Biochemistry (1997), 68(4), 289-294  
 CODEN: JIBIDJ; ISSN: 0162-0134

PB Elsevier Science Inc.

DT Journal

LA English

AB (Diamine)platinum(II) complexes of benzylmalonate derivs. as a leaving group designed in a wide range of lipophilicity and water-solubility were prepared and their antitumor activities were attempted to correlate to their lipophilicity or solubility. A good relationship was observed between their in vitro toxicity and solubility of the title complexes with the same carrier ligand, DACH (trans-( $\pm$ )-1,2-diaminocyclohexane). The most soluble complexes are most cytotoxic whereas the least soluble complexes are least cytotoxic. However, no relationship could be established between their in vivo activity and their lipophilicity or solubility presumably due to other pharmacokinetic factors involved in vivo. The mol. structure of (IPA)<sub>2</sub>Pt(DBM) · 2CH<sub>3</sub> OH (IPA = isopropylamine; DBM = dibenzylmalonate) was determined by X-ray diffraction: space group P21/n,  $a = 11.433$  (3),  $b = 14.461$  (4),  $c = 17.478$  (4) Å,  $\beta = 97.25$  (3)°,  $z = 4$ ,  $R = 0.0437$ .

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 20 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1997:752574 CAPLUS

DN 128:84035

OREF 128:16245a,16248a

TI Anthraquinone intercalators as carrier molecules for second-generation platinum anticancer drugs

AU Gibson, D.; Binyamin, I.; Haj, M.; Ringel, I.; Ramu, A.; Katzhendler, J.  
CS Department of Pharmaceutical Chemistry, School of Pharmacy, The Hebrew  
University of Jerusalem, Jerusalem, Israel  
SO European Journal of Medicinal Chemistry (1997), 32(10), 823-831  
CODEN: EJMCA5; ISSN: 0223-5234  
PB Editions Scientifiques et Medicales Elsevier  
DT Journal  
LA English  
AB A series of complexes PtAm2L [where Am2 = (NH3)2, ethylenediamine(en),  
1,2-diaminocyclohexane (DACH) or (NH3)(c-C6H11NH2) and where L is a  
bidentate 1,1-dicarboxylate ligand tethered to 1-aminoanthraquinone by  
various spacers] was prepared and screened in vitro against p388 leukemia  
cells. The free ligands displayed moderate activity and the corresponding  
platinum complexes were tenfold more active. The nature of the linker  
chain does not seem to affect the potency of the complexes. The potency  
depends on the nature of the inert amine ligand [NH3 > DACH > en]. The  
low aqueous solubility of these complexes prevented any in vivo studies and the  
preparation of water soluble analogs is currently under way.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 21 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1997:250171 CAPLUS  
DN 126:232711  
OREF 126:44854h, 44855a  
TI Manufacture of high-purity cyclohexanediamine platinum complex for  
antitumor agent  
IN Yanai, Junichi; Nakanishi, Chihiro  
PA Tanaka Precious Metal Ind, Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09040685	A	19970210	JP 1995-209149	19950725 <--
	JP 3022264	B2	20000315		
	CN 1150587	A	19970528	CN 1996-111312	19960725 <--
	CN 1067400	C	20010620		
PRAI	JP 1995-209149	A	19950725		
	JP 1996-86954	A	19960410		

AB PtL2Q (I; L = 1-trans-1,2-cyclohexanediamine; H2Q = HO2CCO2H, HO2CRCO2H (R  
= CH2, CHMe, 1,1-cyclobutanediyl, 4-carboxy-1,2-phenylene), HO2CCH2OH) are  
manufactured by treating PtL(H2O)2 with H2Q with control of pH to 3.0-6.0 by  
addition of an alkali solution I with high purity was obtained with high  
yield.

L7 ANSWER 22 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1996:744327 CAPLUS  
DN 126:84087  
OREF 126:16065a, 16068a  
TI Chemical and biological studies on a series of novel (trans-(1R,2R)-,  
trans-(1S,2S)-, and cis-1,2-diaminocyclohexane)platinum(IV) carboxylate  
complexes  
AU Khokhar, Abdul R.; Al-Baker, Salam; Shamsuddin, Shaikh; Siddik, Zahid H.  
CS Department of Clinical Investigation, University of Texas M. D. Anderson  
Cancer Center, Houston, TX, 77030, USA  
SO Journal of Medicinal Chemistry (1997), 40(1), 112-116  
CODEN: JMCMAR; ISSN: 0022-2623  
PB American Chemical Society  
DT Journal

LA English  
AB A series of novel platinum(IV) complexes of the type DACH-PtIV-trans-(Y)2-cis-X (where DACH = trans-(1R,2R)-, trans-(1S,2S)-, or cis-1,2-diaminocyclohexane; X = diacetate, bis(trifluoroacetate), oxalate, malonate, methylmalonate, ketomalonate, cyclobutanecarboxylate (CBCA), or 1,1-cyclobutanedicarboxylate (CBDCA); and Y = acetate or trifluoroacetate) has been synthesized and characterized by elemental anal., IR, and 195Pt-NMR spectroscopy. The compds. have been tested against cisplatin-sensitive L1210/0 leukemia, cisplatin-resistant L1210/DDP leukemia, and M5076 reticulosarcoma cell lines in vivo. Most of these analogs displayed reasonable activity against L1210/0 cells (%T/C = 135 to >700). There were no gross differences in activity between analogs containing isomers of DACH. Selected compds. were evaluated against L1210/DDP tumor models in which they demonstrated reduced but significant activity compared with activity in the L1210/0 model. Interestingly, PtIV(trans-1R,2R-DACH)-trans-(acetate)2-methylmalonate was highly active against M5076, although it had no activity against the L1210 lines. The results demonstrate that specific combinations of axial and equatorial carboxylate ligands, together with the DACH carrier ligand, can favorably modulate the antitumor properties of platinum complexes and enhance circumvention of cisplatin resistance.

L7 ANSWER 23 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1996:224188 CAPLUS  
DN 124:330743  
OREF 124:61035a,61038a  
TI Methods for the preparation of organoplatinum compounds suitable for noncovalent attachment to water-soluble polymers  
AU Howell, B. A.; Richards, R. M.  
CS Center Applications Polymer Science, Central Michigan University, Mt. Pleasant, MI, 48859, USA  
SO Polymeric Materials Science and Engineering (1996), 74, 274-5  
CODEN: PMSEDG; ISSN: 0743-0515  
PB American Chemical Society  
DT Journal  
LA English  
AB Treatment of diaquo(trans-1,2-diaminocyclohexane)platinum(II) with the appropriate 2-arylmalonic acid is the best method in preparation of Pt compds. suitable for attachment to water-soluble polymers.

L7 ANSWER 24 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1996:121452 CAPLUS  
DN 124:192390  
OREF 124:35275a,35278a  
TI Unique Fluxional Behavior. Synthesis, Structure, and Properties of Novel (Diamine)platinum(II) Complexes of 9-Fluorenylidene- and BenzhydrylideneMalonate Ligands  
AU Lee, Young-A; Jung, Ok-Sang; Kang, Seong-Joo; Lee, Kang-Bong; Sohn, Youn Soo  
CS Inorganic Chemistry Laboratory, Korea Institute of Science and Technology, Seoul, 130-650, S. Korea  
SO Inorganic Chemistry (1996), 35(6), 1641-6  
CODEN: INOCAJ; ISSN: 0020-1669  
PB American Chemical Society  
DT Journal  
LA English  
AB New (diamine)platinum(II) complexes A2PtX2 (A2 = trans-(±)-1,2-diaminocyclohexane (DACH), tetrahydro-4H-pyran-4,4-diylbis(methylamine) (THPDMA); X2 = 9-fluorenylideneMalonate (FM), benzhydrylideneMalonate (BHM)) were synthesized and characterized by multinuclear NMR spectroscopy and x-ray anal. (DACH)Pt(FM) crystallizes in space group P21/c with eight formula

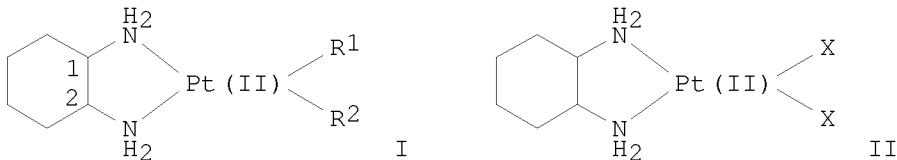
units with a 20.071(7), b 12.717(3), c 24.512(6) Å,  $\beta$  103.25(2)°. (DACH)Pt(BHM) crystallizes in space group P.hivin.1 with four mol. units with a 11.048(3), b 13.639(3), c 14.043(6) Å,  $\alpha$  90.17(3),  $\beta$  91.31(4),  $\gamma$  89.98(3)°. The Pt atom in both complexes adopts a typical square planar arrangement with two N atoms in cis position. The 9-fluorenylidene and benzhydrylidene groups of the amine ligands chelated to Pt are strikingly bent up by 88.8(3) and 80.8(2)°, resp., from the Pt square plane in the solid state.

Variable temperature  $^1\text{H}$  NMR spectra of the title complexes in DMSO solution reveals

that the amine proton resonances are sensitive to the fluxional motion of the remote arylidene groups, and suggests that interconversion occurs between two bent-up and bent-down forms. The prominent difference between the FM and BHM complexes is observed in solution, due to the presence or absence

of the angle constraint of the anionic coligands.

L7	ANSWER 25 OF 101	CAPLUS	COPYRIGHT 2008 ACS on STN		
AN	1995:884008	CAPLUS			
DN	123:305193				
OREF	123:54391a, 54394a				
TI	preparation of cyclohexanediamine-platinum complexes in high purity				
IN	Oonishi, Hiroko				
PA	Tanaka Precious Metal Ind, Japan				
SO	Jpn. Kokai Tokkyo Koho, 4 pp.				
	CODEN: JKXXAF				
DT	Patent				
LA	Japanese				
FAN.CNT	1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07025890	A	19950127	JP 1993-194283	19930709 <--
PRAI	JP 1993-194283		19930709		
OS	MARPAT 123:305193				
GI					



AB The title complexes [I; R<sub>1</sub>R<sub>2</sub> = dibasic acid residue such as oxalyl, malonyl, etc.], useful as anticancer agents (no data), are prepared in high purity by reaction of dihalo complexes II (X = Br, Cl) with dibasic acids at pH 1.0-2.0. Reaction of trans-1,2-diaminocyclohexane with K<sub>2</sub>PtCl<sub>6</sub> in H<sub>2</sub>O gave trans-II (X = Cl), which was treated with aqueous AgNO<sub>3</sub> at room temperature, the filtrate was concentrated and treated with KI, the iodide ppts. were

filtered, the filtrate was adjusted to pH 7.0 with 2N NaOH and filtered again, the filtrate was acidified to pH 2.0 with 2N HNO<sub>3</sub> and then treated with aqueous oxalic acid to give 60% 1,2-trans-I (R<sub>1</sub>R<sub>2</sub> = oxalyl) containing < 5 ppm Cl<sup>-</sup> or I<sup>-</sup>, vs. a brownish-yellow impure product without the acidification process.

L7	ANSWER 26 OF 101	CAPLUS	COPYRIGHT 2008 ACS on STN	
AN	1995:771420	CAPLUS		
DN	123:216836			

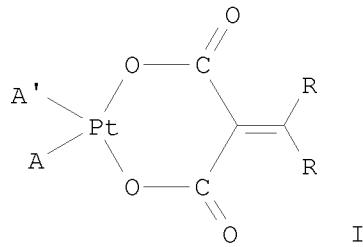
OREF 123:38269a, 38272a  
 TI Synthesis and properties of diamine(isopropylidenemalonato)platinum(II):  
 crystal structure of O(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>C(CH<sub>2</sub>NH<sub>2</sub>)<sub>2</sub>Pt(OOC)<sub>2</sub>C=C(CH<sub>3</sub>)<sub>2</sub>  
 AU Lee, Young-A.; Jung, Ok-Sang; Sohn, Youn Soo; Lee, Kang Bong  
 CS Inorg. Chem. Lab., Korea Inst. Sci. Technol., Seoul, 136-791, S. Korea  
 SO Polyhedron (1995), 14(15/16), 2099-106  
 CODEN: PLYHDE; ISSN: 0277-5387  
 PB Elsevier  
 DT Journal  
 LA English  
 AB New Pt(II) complexes of A<sub>2</sub>Pt(IPM) [A<sub>2</sub> = tetrahydro-4H-pyran-4,4-di(methylamine) (THPDMA), 2,2-dimethyl-1,3-propanediamine (DMPDA), trans-(±)-diaminocyclohexane (DACH); A = NH<sub>3</sub>, isopropylamine (IPA), cyclopropylamine (CPA); IPM = isopropylidenemalonate] were synthesized and characterized by x-ray crystallog. and various spectroscopies. The crystal structure of (THPDMA)Pt (IPM).5H<sub>2</sub>O was determined. The Pt atom adopts a typical square planar arrangement with two N atoms in the cis positions. The mol. structures are retained in aqueous solution at room temperature. However, the present

complexes change to DMSO adducts on standing for a long time or increasing temperature in DMSO: the monoedentate amine complex produces (A)(DMSO)Pt(OOC)<sub>2</sub>C=CMe<sub>2</sub>, whereas the chelate amine analog affords A<sub>2</sub>Pt+(DMSO)(OOC)C(COO<sup>-</sup>)=CMe<sub>2</sub>.

L7 ANSWER 27 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1995:690268 CAPLUS  
 DN 123:186925  
 OREF 123:32913a, 32916a  
 TI Platinum complexes of malonic acid derivatives and process for the preparation thereof  
 IN Sohn, Youn S.; Jung, Ok S.; Lee, Young A.; Kim, Kwan M.  
 PA Korea Institute of Science and Technology, S. Korea  
 SO U.S., 10 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5426203 KR 9710594	A B1	19950620 19970628	US 1994-178674 KR 1993-21558	19940107 <-- 19931016 <--
PRAI	KR 1993-21558	A	19931016		
OS	MARPAT 123:186925				
GI					



AB Novel Pt amine complexes with malonate derivative anionic ligands (I) are prepared. Thirty one examples are reported in which R = alkyl or R-R = (CH<sub>2</sub>)<sub>n</sub> (n = 2, 3, 4, 5); A = A' = NH<sub>3</sub>, iso-PrNH<sub>2</sub> or A-A' = cyclic diamine, or

A = aliphatic amine and A' = cyclic amine. Antitumor activity and toxicity data are given for 6 of the products.

L7 ANSWER 28 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1995:621688 CAPLUS

DN 123:24614

OREF 123:4355a, 4358a

TI Anti-tumor platinum(IV) complex.

IN Kidani, Yoshinori; Komoda, Yasunobu

PA Tanaka Kikinzoku Kogyo K.K., Japan

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 646589	A2	19950405	EP 1994-202874	19941004 <--
	EP 646589	A3	19950628		
	R: CH, DE, ES, FR, GB, IT, LI, NL				
	JP 07101969	A	19950418	JP 1993-271246	19931004 <--
	JP 07101970	A	19950418	JP 1993-271247	19931004 <--
	JP 07138274	A	19950530	JP 1993-307168	19931112 <--
	US 5648384	A	19970715	US 1994-317919	19941004 <--
PRAI	JP 1993-271246	A	19931004		
	JP 1993-271247	A	19931004		
	JP 1993-307168	A	19931112		
OS	MARPAT 123:24614				
AB	Disclosed is an antitumor liposol. platinum(IV) complexes having Formula [(A-A)PtX4] [A-A = 1,2-cycloalkanediamine, 2-aminomethylcyclohexylamine, 1,1-di(aminomethyl)cyclohexane (preferably 1,2-cyclohexanediamine); X = Br-, I-, F-] and a Formula [(A-A)PtL2X2] [L2 = a ligand forming a five or six membered ring via O-O coordination, such as oxalate and malonate; X = Br-, I-, F-, carboxylate, carbonate, carbamate, sulfate and phosphate]. Because these complexes have liposol. groups, they are effective for various internal organ tumors or cancers.				

L7 ANSWER 29 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1995:249678 CAPLUS

DN 122:46285

OREF 122:8685a, 8688a

TI Synthesis, structure, and antitumor activity of 1,3-dithiol- and 1,3-dithiolan-2-ylidenemalonatoplatinum(II) complexes

AU Sohn, Youn Soo; Kim, Kwan Mook; Jeong, Jong Hwa; Noh, Dong Youn; Lee, Chong Ock; Choi, Sang Un

CS Korea Inst. Sci. and Technology, Seoul, S. Korea

SO Journal of Inorganic Biochemistry (1994), 54(2), 107-14

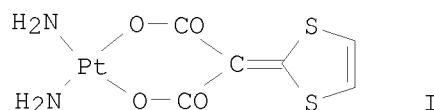
CODEN: JIBIDJ; ISSN: 0162-0134

PB Elsevier

DT Journal

LA English

GI



AB 1,3-Dithiol- and 1,3-dithiolan-2-ylidenemalonatoplatinum(II) complexes

A<sub>2</sub>Pt(OOC)<sub>2</sub>C=CR<sub>2</sub> (A = NH<sub>3</sub>, cyclopropylamine (CPA) or A<sub>2</sub> = ethylenediamine(EDA), trans-(±)-1,2-diaminocyclohexane(DACH); R<sub>2</sub> = SCH=CHS, SCH<sub>2</sub>CH<sub>2</sub>S) have been synthesized and subjected to in vivo assay for antitumor activity after characterization by means of elemental anal., IR spectroscopy, and x-ray anal. The mol. structure of I has been determined by x-ray diffraction: space group P21/n, a = 7.955(1), b = 16.912(2), c = 15.116(2) Å, β = 102.74(1)°, z = 4, R = 0.032, RW = 0.035. Among the Pt(II) complexes studied, biscyclopropylamineplatinum(II) complexes both of the above-mentioned dicarboxylate leaving groups exhibited much higher antitumor activity against the leukemia L1210 cell line compared with the known cisplatin.

L7 ANSWER 30 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1994:644146 CAPLUS  
DN 121:244146  
OREF 121:44281a,44284a  
TI Synthesis and characterization of new antitumor trans-R,R-, trans-S,S- and cis-1,2-diaminocyclohexane platinum(IV) complexes  
AU Al-Baker, Salaam; Siddik, Zahid H.; Khokhar, Abdul R.  
CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, 77030, USA  
SO Journal of Coordination Chemistry (1994), 31(2), 109-16  
CODEN: JCCMBQ; ISSN: 0095-8972  
DT Journal  
LA English  
AB Isomeric 1,2-diaminocyclohexane Pt(IV) complexes DACH-PtIV-trans(X)2cis(Z) (DACH = trans-R,R-, trans-S,S- or cis-1,2-diaminocyclohexane, X = chloro, bromo, acetato, or trifluoroacetato, and Z = dichloro, dibromo, 1,1-cyclobutanedicarboxylato, tartronato, ketomalonato, or methylmalonato) were synthesized. The isomeric DACH-PtIV-trans(X)2cis(Z) complexes were prepared by 1st oxidizing the corresponding DACH-dihaloplatinum(II) or DACH-dicarboxylato-Pt(II) [DACH-PtIIZ] with H<sub>2</sub>O<sub>2</sub> to DACH-PtIV-trans(OH)<sub>2</sub>Z, and then replacing the axial hydroxo groups with chloro, bromo, or monocarboxylato ligands. These complexes were characterized by elemental anal., and IR and NMR (195Pt{1H}) spectroscopic techniques.

L7 ANSWER 31 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1994:498365 CAPLUS  
DN 121:98365  
OREF 121:17418h,17419a  
TI Synthesis and antitumor activity of 1,2-diaminocyclohexane platinum(IV) complexes  
AU Khokhar, Abdul R.; Al-Baker, Salaam; Siddik, Zahid H.  
CS M.D. Anderson Cancer Cent., Univ. Texas, Houston, TX, USA  
SO Journal of Inorganic Biochemistry (1994), 54(1), 39-47  
CODEN: JIBIDJ; ISSN: 0162-0134  
DT Journal  
LA English  
AB The synthesis, characterization, and antitumor activity of Pt(IV) complexes DACH-PtIV(X)2Y (DACH = trans-dL-, or trans-1-1,2-diaminocyclohexane, X = OH or Cl, and Y = oxalato, malonato, methylmalonato, tartronato, keto-malonato, 1,1-cyclopropanedicarboxylato, or 1,1-cyclobutanedicarboxylato) are described. These complexes were characterized by elemental anal., HPLC, and IR and 195Pt NMR spectroscopic techniques. The complexes had good in vitro cytotoxic activity (IC<sub>50</sub> = 0.14-7.6 µg/mL) and were highly active in vivo against leukemia L1210 cells (%T/C = 152- > 600, cisplatin = 218). Excellent in vivo antitumor activities against B16 melanoma (%T/C = 309), M5076 reticulosarcoma (100% cures) and cisplatin-resistant L1210/DDP (%T/C = 217) cell lines were also exhibited by an analog selected for further evaluation.

L7 ANSWER 32 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1994:337788 CAPLUS

DN 120:337788  
OREF 120:59152h, 59153a  
TI Diamine platinum(IV) complexes having mixed carboxylate ligands as antitumor agents  
IN Khokhar, Abdul R.; Siddik, Zahid H.; Al-Baker, Salaam  
PA Board of Regents, University of Texas System, USA  
SO U.S., 8 pp. Cont.-in-part of U.S. Ser. No 927,201.  
CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5288887	A	19940222	US 1992-978788	19921119 <--
	US 5288887	B1	19960312		
	US 5041578	A	19910820	US 1988-274824	19881122 <--
	US 5318962	A	19940607	US 1992-927201	19920807 <--
	US 5393909	A	19950228	US 1994-200395	19940223 <--
	US 5434256	A	19950718	US 1994-316139	19940930 <--
PRAI	US 1988-274824	A3	19881122		
	US 1990-624795	B2	19901207		
	US 1992-927201	A2	19920807		
	US 1992-978788	A2	19921119		
	US 1994-200395	A2	19940223		

OS MARPAT 120:337788

GI For diagram(s), see printed CA Issue.

AB Pt(V) complexes with mixed carboxylato ligands I (X1 and X2 are carboxylato, or are jointly dicarboxylato, 1Y and Y2 are carboxylato, and Z is either diaminocyclohexane or ethylenediamine) were prepd, and have desirable antitumor activity, as well as relatively low levels of toxicity.

L7 ANSWER 33 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:152185 CAPLUS

DN 120:152185

OREF 120:26521a, 26524a

TI Hydrophilic analogs of (R,R)-diaminocyclohexane dichloroplatinum (DACH) and the influence of relative stereochemistry on antitumor activity

AU Hanessian, Stephen; Wang, Jianguo

CS Dep. Chem., Univ. Montreal, Montreal, QC, H3C 3J7, Can.

SO Canadian Journal of Chemistry (1993), 71(12), 2102-8

CODEN: CJCHAG; ISSN: 0008-4042

DT Journal

LA English

AB Analogs of (R,R)-1,2-diaminocyclohexane dichloroplatinum(II) (DACH) containing stereochem. defined hydroxy groups and appropriate acidic leaving groups were synthesized and tested as antitumor agents. The (1 $\alpha$ ,2 $\beta$ ,3 $\alpha$ ,4 $\beta$ )-1,4-dihydroxy-2,3-diaminocyclohexane analog showed the highest potency against P388 leukemia in mice. Increasing the hydrophilicity of the Pt complex to a certain extent could improve the antitumor activity of the drug. The stereochem. disposition of the substituents on the cyclohexane ring probably affects the antitumor activity.

L7 ANSWER 34 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:22366 CAPLUS

DN 120:22366

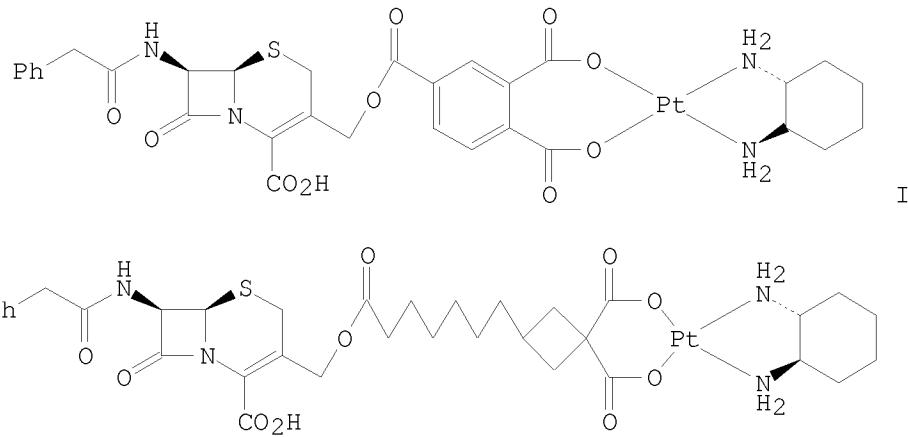
OREF 120:4021a, 4024a

TI Design and synthesis of a cephalosporin-carboplatinum prodrug activatable by a  $\beta$ -lactamase

AU Hanessian, Stephen; Wang, Jianguo

CS Dep. Chem., Univ. Montreal, Montreal, QC, H3C 3J7, Can.

SO Canadian Journal of Chemistry (1993), 71(6), 896-906  
CODEN: CJCHAG; ISSN: 0008-4042  
DT Journal  
LA English  
GI



AB The design and syntheses of 2 cephalosporin-carboplatinum prodrugs I and II that can be released by a  $\beta$ -lactamase are described. The hydrolysis of cephalosporins catalyzed by a  $\beta$ -lactamase with acetyl or DACCp as 3'-leaving groups is studied by  $^1\text{H}$  NMR in deuterated buffer solns. These notions provide a new approach to the use of Pt complexes for antitumor therapy.

L7 ANSWER 35 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1993:594381 CAPLUS  
DN 119:194381  
OREF 119:34413a,34416a  
TI Platinum(II) complexes of functionalized malonato ligands: unequivocal synthesis, interaction with a tetra-deoxyribonucleotide and deoxyribonucleic acid  
AU Laurent, Jean Pierre; Morvan, Bernard  
CS Lab. Chim. Coord., Univ. Paul Sabatier, Toulouse, 31077, Fr.  
SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1993), (14), 2141-5  
CODEN: JCDTBI; ISSN: 0300-9246  
DT Journal  
LA English  
AB The unequivocal syntheses of 4 cis-[PtL<sub>2</sub>{(O<sub>2</sub>C)₂CH(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>H}] complexes (L<sub>2</sub> = (NH<sub>3</sub>)<sub>2</sub> or trans-cyclohexane-1,2-diamine, n = 1 or 4) was achieved, avoiding any interaction between the pendant carboxyl group and the Pt. The complexes were characterized by elemental anal., <sup>13</sup>C NMR and FAB mass spectrometry. Their interaction with a tetra-deoxyribonucleotide d(T-G-G-T) (G = guanosine, T = ribosylthymine) and DNA (in vitro) was studied to show that they form [PtL<sub>2</sub>{(GpG)-N<sub>7</sub>,N<sub>7'</sub>}] as do the known therapeutically active Pt complexes. However the presence of the free carboxyl function increases significantly the reactivity with respect to that of the related nonfunctionalized malonato complexes [PtL<sub>2</sub>{H<sub>2</sub>C(CO<sub>2</sub>)<sub>2</sub>}].

L7 ANSWER 36 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1993:461722 CAPLUS

DN 119:61722  
 OREF 119:10895a, 10898a  
 TI Preparation of platinum complexes as antitumor agents  
 IN Kitani, Yoshinori; Nomichi, Masahide; Onishi, Junji; Okamoto, Koji  
 PA Tanaka Kikinzoku Kogyo K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF

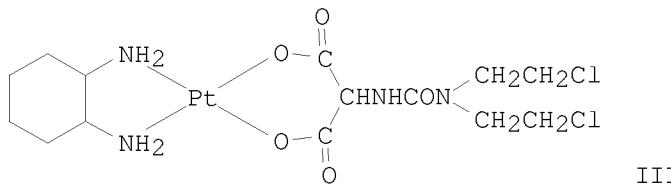
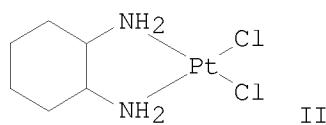
DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04330090	A	19921118	JP 1991-25693	19910126 <--
PRAI JP 1991-25693		19910126		

GI



AB Pt complexes with nitrogen mustards and L-phenylalanine mustards, useful as antitumor agents, are prepared. Reaction of (C1CH2CH2)2NH.HCl with triphosgene in CHCl3 gave 81% (C1CH2CH2)2NCOC1, which was treated with H2NCH(CO2Et)2.HCl and Et3N in CHCl to give (C1CH2CH2)2NCONHCH(CO2R)2 (I; R = Et). Acid hydrolysis of the above ester gave acid I (R = H), which was dissolved in MeOH and treated with Pt complex II to give nitrogen mustard complex III, which showed 247% increase in survival rate at 12.5 mg/kg in mice transplanted with L-1210 leukemic cells, vs. 154% with a reference

L7 ANSWER 37 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1993:115678 CAPLUS

DN 118:115678

OREF 118:19916h, 19917a

TI Anti-tumor platinum(II) complexes and process for the preparation thereof

IN Sohn, Youn S.; Kim, Kwan M.

PA Korea Institute of Science and Technology, S. Korea

SO U.S., 6 pp.

CODEN: USXXAM

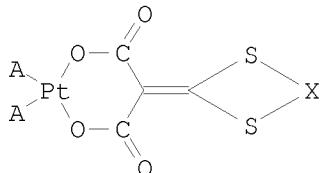
DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5142075	A	19920825	US 1991-797125	19911122 <--
GB 2257138	A	19930106	GB 1991-22559	19911024 <--
GB 2257138	B	19950222		
FR 2678623	A1	19930108	FR 1991-13278	19911028 <--
FR 2678623	B1	19960308		
DE 4137930	A1	19930114	DE 1991-4137930	19911118 <--
DE 4137930	C2	19940217		

JP 05078378	A	19930330	JP 1992-56644	19920210 <--
JP 06089011	B	19941109		
PRAI KR 1991-11401	A	19910705		
OS MARPAT 118:115678				
GI				



AB Antitumor Pt complexes are represented by the formula I, where A is selected from ammine and monodentate primary alkyl- and cycloalkylamines having 1-3 C atoms, such as Me, Et, n-Pr, iso-Pr, and cyclopropylamines, or the 2 amine groups may be combined to be a bidentate diamine of the chelating form AA, such as ethylenediamine, 1,2-diaminocyclohexane, and 2-hydroxy-1,3-diaminopropane, and X is either vinylene (-CH=CH-) or ethylene (-CH<sub>2</sub>-CH<sub>2</sub>-) when it is bound to 2 S atoms in a cyclic form or represents two Me groups sep. bound to each S atom. Tests in mice against leukemia L1210 cells were performed, and data reported.

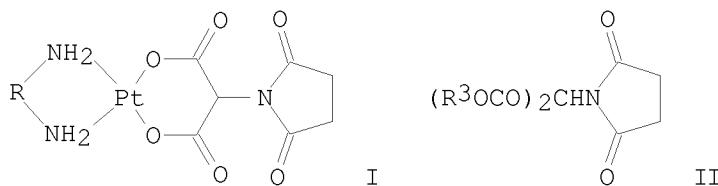
L7 ANSWER 38 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1993:115521 CAPLUS  
DN 118:115521  
OREF 118:19893a,19896a  
TI Preparation, characterization and antileukemic properties of diaminemalonatoplatinum(II) complexes tethered to ferrocene  
AU Rosenfeld, Ayelet; Blum, Jochanan; Gibson, Dan; Ramu, Avner  
CS Dep. Org. Chem., Hebrew Univ., Jerusalem, 91904, Israel  
SO Inorganica Chimica Acta (1992), 201(2), 219-21  
CODEN: ICHAA3; ISSN: 0020-1693  
DT Journal  
LA English  
AB In search for new antitumor agents with target specificity, 4 complexes were prepared in which diaminemalonatoplatinum(II) moieties are covalently tethered to ferrocene - an organ specific biol. carrier. PtL<sub>2</sub>X (H<sub>2</sub>X = (ferrocenemethyl)propanedioic acid; L<sub>2</sub> = (NH<sub>3</sub>)<sub>2</sub>, bis(aminocyclobutane), cis- and trans-1,2-diaminocyclohexane) were characterized by <sup>195</sup>Pt NMR spectroscopy and elemental anal. Their activity was assessed in vitro against P388 leukemia cells. They showed considerable activity (ED<sub>50</sub> ≈ 5-45 μM) though to a smaller extent than cis-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub>. They are more active than the complexes in which a bis(phosphinecatecholato)platinum(II) moiety was tethered to ferrocene or to ruthenocene.

L7 ANSWER 39 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1992:663658 CAPLUS  
DN 117:263658  
OREF 117:45385a,45388a  
TI Cis ammine platinum complexes and antitumor agents containing the complexes  
IN Namita, Takeshi; Kaneko, Tatsuya; Muto, Masato  
PA Toray K. K., Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04069393	A	19920304	JP 1990-182430	19900709 <--
PRAI JP 1990-182430		19900709		
OS MARPAT 117:263658				
GI				



AB The Pt complexes [I; R = -CH(R1)CH(R2)-, -CH<sub>2</sub>C(R3)(R4)CH<sub>2</sub>-; R1-2 = H, C<sub>1-6</sub> aliphatic hydrocarbon (total C of R1 + R2 ≤ 8); R1 and R2 may form (CH<sub>2</sub>)<sub>k</sub>; R3-4 = H, C<sub>1-6</sub> aliphatic hydrocarbon, H(CH<sub>2</sub>)<sub>10</sub>(CH<sub>2</sub>)<sub>m</sub>-, R3 and R4 may form (CH<sub>2</sub>)<sub>n</sub>; k = 4, 5; l = 0-3; m = 2, 3; n = 3-5] are claimed. Malonic acid derivs. (II; R<sub>5</sub> = H, lower alkyl, benzyl, alkali metal, alkaline earth metal) are claimed. The antitumor agents contain I. The complexes show effective antitumor action on mice leukemia with low toxicity.

L7 ANSWER 40 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:482321 CAPLUS

DN 117:82321

OREF 117:14139a, 14142a

TI The crystal structure and absolute configuration of the antitumor platinum complex trans-(OH)<sub>2</sub>Pt(malonato)(1R,2R-cyclohexanediamine)

AU Goto, Masafumi; Hirose, Junzo; Noji, Masahide; Lee, Keun Im; Saito, Reiko; Kidani, Yoshinori

CS Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, 862, Japan

SO Chemical & Pharmaceutical Bulletin (1992), 40(4), 1022-4  
CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

AB The absolute configuration of the anti-tumor complex trans-(OH)<sub>2</sub>Pt(malonato)(1R,2R-cyclohexanediamine) was determined by x-ray anomalous scattering techniques. The final unit cell was monoclinic, space group P21, with Z = 2 and R<sub>w</sub> = 0.033. The platinum atom has roughly octahedral coordination. The cyclohexane ring has the expected chair configuration, with two amino groups in equatorial positions while the malonato ligand, in contrast, shows a boat conformation for the six-membered Pt O-C-C-C-O ring.

L7 ANSWER 41 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:419317 CAPLUS

DN 117:19317

OREF 117:3318h, 3319a

TI Preparation of tetravalent platinum complexes as antitumor agents

IN Sugimura, Masao; Inomata, Takako; Kobayashi, Tomoo

PA Sankyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

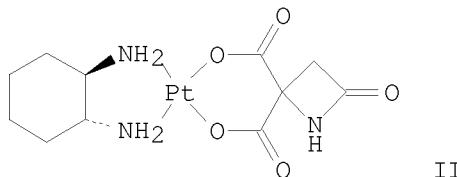
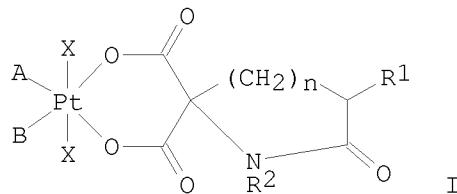
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 03279392	A	19911210	JP 1990-81514	19900329 <--
PRAI JP 1990-81514		19900329		
OS MARPAT 117:19317				
GI				



AB The title compds. [I; A, B = NH<sub>3</sub>, primary, secondary, on aromatic amine, AB = diamine; R<sub>1</sub> = H, (substituted) alkyl, aryl, aralkyl, heterocyclyl, etc.; R<sub>2</sub> = H, (substituted) alkyl, aryl, aralkyl; X = OH, Cl, n = 0-2], useful as antitumor agents (no data), are prepared cis-II (100 mg) was added to 30% H<sub>2</sub>O<sub>2</sub> with stirring at room temperature to give 97 mg I (AB = trans-1,2-cyclohexanediamine, X = OH, R<sub>1</sub> = R<sub>2</sub> = H, n = 0).

L7 ANSWER 42 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:267958 CAPLUS

DN 116:267958

OREF 116:45202h, 45203a

TI Binuclear platinum complex for antitumor agents

IN Sugimura, Masao; Ichihara, Yukiko; Kobayashi, Tomoo

PA Sankyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

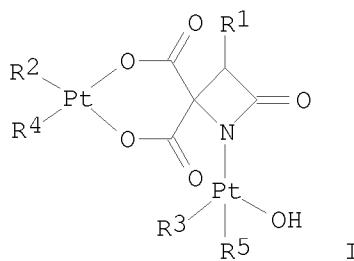
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 03271297	A	19911203	JP 1990-72475	19900322 <--
PRAI JP 1990-72475		19900322		
OS MARPAT 116:267958				
GI				



AB The complex consists of I [R1 = H, (substituted) lower alkyl, (substituted) aryl, (substituted) heterocyclic group, acylamino, alkoxy carbonyl, alkoxy, alkylthio, halo, aralkyl; R2-5 = NH3, primary alkylamine, secondary alkylamine, aromatic amine; R2 and R4 or R3 and R5 may form diamine]. The complex showed good antitumor effect on mouse leukemia.

L7 ANSWER 43 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:247337 CAPLUS

DN 116:247337

OREF 116:41705a, 41708a

TI Preparation of lipophile platinum complexes as anticancer agents

IN Konakawa, Osamu; Nomichi, Minoru; Ninomiya, Hiroshi; Iwata, Kenji; Yokumoto, Hisao

PA Nippon Kayaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

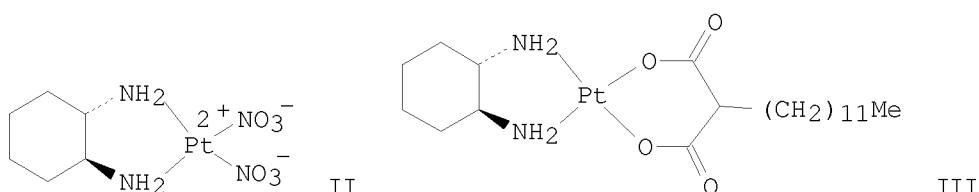
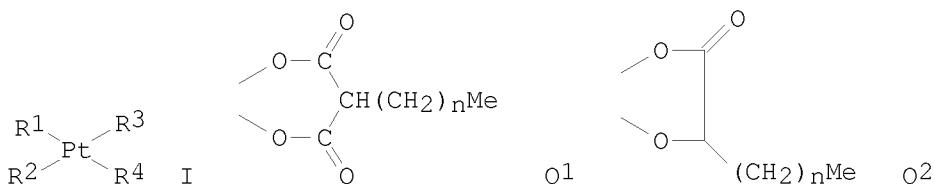
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03200795	A	19910902	JP 1989-338280	19891228 <--
PRAI	JP 1989-338280		19891228		
OS	MARPAT 116:247337				
GI					



AB Pt complexes [I; R1, R2 = NH3, R1R2 = 1,2-diaminocyclohexane, 1-amino-1-(aminomethyl)cyclohexane; R3, R4 = Me(CH2)nCH(OH)CO2 (n = 7-20),

R3R4 = Q1, Q2] are prepared. Thus, a solution of dodecylmalonic acid in NaOH was added to a solution of dinitrato complex II in H<sub>2</sub>O with stirring at 40–45° to give 58% III.1.5 H<sub>2</sub>O, which was formulated into a microfile suspension to show 88.72% inhibition of mouse leukemia cell L-1210 at 1.00 µg/mL.

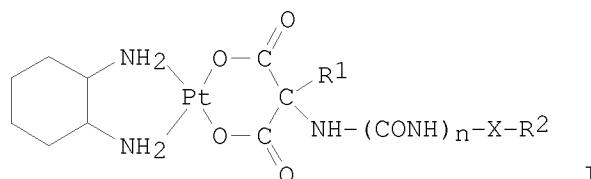
L7 ANSWER 44 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1992:14712 CAPLUS  
DN 116:14712  
OREF 116:2495a,2498a  
TI Synthesis of aminomalonic acid-1,2-diaminocyclohexane-platinum complex  
AU Zhao, Yanwei; Meng, Zhaoli; Wang, Huicai  
CS Dep. Pharm., Shandong Med. Univ., Jinan, 250012, Peop. Rep. China  
SO Zhongguo Yiyao Gongye Zazhi (1991), 22(4), 151-2  
CODEN: ZYGZEA; ISSN: 1001-8255  
DT Journal  
LA Chinese  
AB PtLL'(I; L = 1,2-diaminocyclohexane, H<sub>2</sub>L' = 2-aminomalonic acid) was synthesized by the reaction of K<sub>2</sub>PtCl<sub>6</sub> with NH<sub>2</sub>NH<sub>2</sub>.2HCl to form K<sub>2</sub>PtCl<sub>4</sub> which was then reacted with 1,2-diaminocyclohexane at pH 8–9 to form PtLC<sub>12</sub>. PtLC<sub>12</sub> was then reacted with Ag<sub>2</sub>SO<sub>4</sub> to form PtL(SO<sub>4</sub>) which reacted with NH<sub>2</sub>CH(COOH)<sub>2</sub> in the presence of Ba(OH)<sub>2</sub> to form I. The yield was 85.1%, m.p. 250° (decompose). The IR spectra and elemental anal. confirmed the structure. (L')<sub>2</sub>- coordinates through 2 carboxylate O atoms.

L7 ANSWER 45 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1991:621937 CAPLUS  
DN 115:221937  
OREF 115:37601a,37604a  
TI Antitumor agent containing platinum complex  
IN Tsujihara, Kenji; Otsuki, Osamu; Nakatani, Tadashi; Arai, Yoshihisa  
PA Tanabe Seiyaku Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02067217	A	19900307	JP 1988-219266	19880901 <--
PRAI	JP 1988-219266				
OS	MARPAT 115:221937		19880901		
GI					



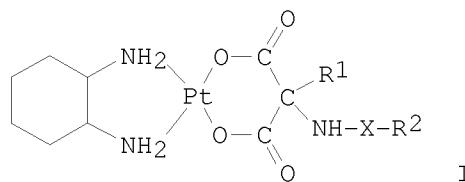
AB Am antitumor agent contains an effective component I (R<sub>1</sub> = H, lower alkyl; R<sub>2</sub> = H, (un)substituted lower alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, amino, N or O heterocyclic ring; Z = lower alkylene; X = carbonyl, sulfonyl; n = 1, 2).

L7 ANSWER 46 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1991:549823 CAPLUS

DN 115:149823  
 OREF 115:25419a, 25422a  
 TI Murine antitumor activity of new water soluble platinum(II) complexes with reduced toxicity  
 AU Talebian, A. H.; Bensely, D.; Schein, P. S.; Green, D.  
 CS Dep. Chem., Georgetown Univ., Washington, DC, 20057, USA  
 SO Anti-Cancer Drug Design (1990), 5(4), 371-8  
 CODEN: ACDDEA; ISSN: 0266-9536  
 DT Journal  
 LA English  
 AB A series of new water soluble sugar and non-sugar containing platinum(II) complexes was synthesized and evaluated for effects of the sugar moiety on water solubility, antitumor activity, and acute leukopenia. When tested in vivo against the murine P388 and L1210 leukemias at LD10/maximally EDs, the compound cis-[(glucosylamino)malonato-O,O'](1R,2R-cyclohexanediamine-N,N')platinum(II), R,R-G-AMP, produced comparable or superior antitumor activity to cisplatin, carboplatin, and tetraplatin. Efficacy was also demonstrated for the L1210/DDP (cisplatin-resistant) leukemia. Further, R,R-G-AMP is non-nephrotoxic and produces less leukopenia than cisplatin, carboplatin, and tetraplatin.

L7 ANSWER 47 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1991:525666 CAPLUS  
 DN 115:125666  
 OREF 115:21311a, 21314a  
 TI Antitumor agent containing platinum complex  
 IN Tsujihara, Kenji; Otsuki, Osamu; Nakatani, Tadashi; Arai, Yoshihisa  
 PA Tanabe Seiyaku Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02056421	A	19900226	JP 1988-206589	19880819 <--
PRAI JP 1988-206589		19880819		
OS MARPAT 115:125666				
GI				



AB An antitumor agent contains an effective component I ( $R_1 = H$ , lower alkyl;  $R_2 = (\text{un})\text{substituted lower alkyl, alkenyl, alkanoyl, amino, N or O heterocyclic ring, } CH_2O(CH_2CH_2O)_mCH_3$ ;  $X = \text{carbonyl, sulfonyl; } m = 1, 2$ ). Specifically, the component comprises [2-(acetylamino)malonato](trans-1-1,2-diaminocyclohexane)platinum, [2-{(methoxyethoxy)acetylamino}malonato](trans-1-1,2-diaminocyclohexane)platinum, or [2-(acetylamino)-2-methylmalonato](trans-1,2-diaminocyclohexane)platinum.

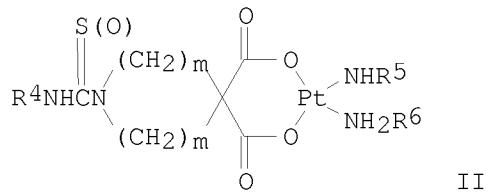
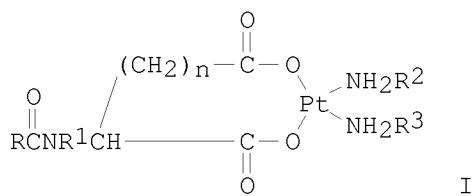
L7 ANSWER 48 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1991:464745 CAPLUS  
 DN 115:64745  
 OREF 115:10983a,10986a  
 TI Preparation of organoplatinum antileukemia drugs  
 IN Talebian, Abdolhossen; Green, Dianna C.; Schein, Philip S.  
 PA Georgetown University, USA  
 SO PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9008157	A1	19900726	WO 1990-US171	19900117 <--
	W: AU, CA, HU, JP, NO, SU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	US 4946954	A	19900807	US 1989-301773	19890126 <--
	AU 9050394	A	19900813	AU 1990-50394	19900117 <--
	ZA 9000336	A	19901031	ZA 1990-336	19900117 <--
	EP 462980	A1	19920102	EP 1990-902930	19900117 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 04502767	T	19920521	JP 1990-503681	19900117 <--
	JP 2771326	B2	19980702		
	RU 2074861	C1	19970310	RU 1990-5001256	19900117 <--
	NO 9102732	A	19910711	NO 1991-2732	19910711 <--
	NO 180588	B	19970203		
	NO 180588	C	19970514		
PRAI	US 1989-297368	A	19890117		
	US 1989-301773	A	19890126		
	US 1987-74825	B2	19870717		
	US 1988-143761	A2	19880114		
	WO 1990-US171	A	19900117		
OS	MARPAT 115:64745				
GI					



AB Due to the dicarboxylate-imparted mol. structure the chelated platinum (II) complex amine salts I and II are more water-soluble, and less damaging to kidney and bone marrow. I and II (n = 0 or 1; when n = 1, R1 = H or C1-4 alkyl, R = alkyl, mono- or disaccharide; when n = 0, R1 = H, C1-4 alkyl, R = H, halo, alkyl, etc.; R2, R3 = H, C1-4 alkyl; R2R3 = fused or bicyclic, or alkylene in 4-8 member ring when R ≠ R1 = H and n = 0; m

= 1, 2; R4 = mono- or disaccharide; R5, R6 = H, C1-4 alkyl; CR5R6 = 5- or 6-member ring) are prepared as antileukemia drugs. Pentaacetylgluconyl chloride was reacted with iminomalonic acid in N,N-diisopropylethylamine/CH<sub>3</sub>CN to give the iminomalonic acid intermediate, which was treated with Ba(OH)<sub>2</sub>.8H<sub>2</sub>O and then added to cis-(R,R)-sulfato(cyclohexane-1,2-diamine-N,N')platinum(II) in an aqueous solution to give the iminomalonic acid-chelated Pt-complex cyclohexanediamine salt. A dosage form suitable for i.v. administration was 130 mg active ingredient/m<sup>2</sup> body surface of patient in an isotonic solution and in vivo tests on mice-carried P388 leukemia cells were conducted.

L7 ANSWER 49 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1991:464146 CAPLUS  
DN 115:64146  
OREF 115:10851a,10854a  
TI Chemical and biological characterization of a series of water soluble 1,2-diaminocyclohexane platinum(II) complexes  
AU Khokhar, Abdul R.; Hacker, Miles P.  
CS Dep. Chemother. Res., M. D. Anderson Hosp., Houston, TX, 77030, USA  
SO Inorganica Chimica Acta (1991), 179(2), 289-92  
CODEN: ICHAA3; ISSN: 0020-1693  
DT Journal  
LA English  
AB A series of water-soluble 1,2-diaminocyclohexane platinum(II) complexes were prepared and analyzed for their mode of ligand coordination and biol. activity. Preliminary in vitro and in vivo screening tests indicate that these complexes have excellent antitumor activity and are not crossresistant with DDP. This series of platinum complexes warrant further study for eventual introduction into clin. studies.

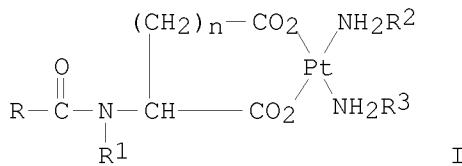
L7 ANSWER 50 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1991:440792 CAPLUS  
DN 115:40792  
OREF 115:6889a,6892a  
TI Platinum pharmaceutical agents  
IN Talebian, Abdolhosse; Green, Dianna C.; Schein, Philip S.  
PA Georgetown University, USA  
SO U.S., 16 pp. Cont.-in-part of U.S. Ser. No. 297,368.  
CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4946954	A	19900807	US 1989-301773	19890126 <--
	US 4895936	A	19900123	US 1988-143761	19880114 <--
	CA 2045120	A1	19900718	CA 1990-2045120	19900117 <--
	WO 9008157	A1	19900726	WO 1990-US171	19900117 <--
	W: AU, CA, HU, JP, NO, SU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	AU 9050394	A	19900813	AU 1990-50394	19900117 <--
	ZA 9000336	A	19901031	ZA 1990-336	19900117 <--
	EP 462980	A1	19920102	EP 1990-902930	19900117 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 04502767	T	19920521	JP 1990-503681	19900117 <--
	JP 2771326	B2	19980702		
	HU 59690	A2	19920629	HU 1990-1456	19900117 <--
	IL 93090	A	19951031	IL 1990-93090	19900117 <--
	NO 9102732	A	19910711	NO 1991-2732	19910711 <--
	NO 180588	B	19970203		
	NO 180588	C	19970514		
	AU 9454792	A	19940331	AU 1994-54792	19940131 <--

AU 674185 B2 19961212  
 PRAI US 1987-74825 B2 19870717  
 US 1988-143761 A2 19880114  
 US 1989-297368 A2 19890117  
 US 1989-301773 A 19890126  
 WO 1990-US171 A 19900117  
 OS MARPAT 115:40792  
 GI



**AB** Pt compds. useful in the treatment of cancer are disclosed. Compns. containing these compds. and methods of using the same are also discussed, with antitumor testing data. Compds. having the formula I, where n is 0 or 1 and when n is 1, R1 is H or C1-4 alkyl, R is nonsubstituted higher alkyl or mono or disaccharide or a derivative of a mono or disaccharide, when n is 0, R1 is H or C1-alkyl, R is H, halogen, nonsubstituted C1-20 alkyl, aryl, aralkyloxy, mono or disaccharide, or a derivative of a mono or disaccharide, and R2 and R3 are selected from H, C1-4 alkyl or R2 and R3 or R2 and R3 together are linked to adjacent C atoms on a 4-, 5-, or 6-membered ring structure, or R2 and R3 together form a fused or bicyclic ring with adjacent C atoms, or R2 and R3 together are a substituted or unsubstituted C1-5 alkylene group; with the proviso that R and R1 cannot both be H when n = 0, or a pharmaceutically acceptable salt thereof, are particularly useful.

L7 ANSWER 51 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1991:198518 CAPLUS  
 DN 114:198518  
 OREF 114:33251a,33254a  
 TI Synthesis and characterization of a series of water soluble amidomalonato(1R,2R-cyclohexanediamine)platinum(II) complexes  
 AU Talebian, Abdolhossein; Bensely, Dennis; Green, Dianna; Schein, Philip S.  
 CS Dep. Chem., Georgetown Univ., Washington, DC, 20057, USA  
 SO Journal of Coordination Chemistry (1990), 22(3), 165-73  
 CODEN: JCCMBQ; ISSN: 0095-8972  
 DT Journal  
 LA English  
 AB H<sub>2</sub>O-soluble [Pt(DACH)[RCH(COO)<sub>2</sub>]] (DACH 1R,2R-cyclohexanediamine; RH = formamide, acetamide, (penta-O-acetylgluconyl)amine, gluconylamine) were synthesized. The modes of binding of amidodicarboxylic acid derivs. in these complexes were determined by <sup>1</sup>H, <sup>13</sup>C, and <sup>195</sup>Pt NMR; 2-dimensional correlation spectroscopy (2D-COSY){<sup>1</sup>H-<sup>1</sup>H} AND 2D-heteronuclear COSY{<sup>1</sup>H-<sup>13</sup>C} NMR, mass spectrometry (fast atom bombardment), IR, and conductivity

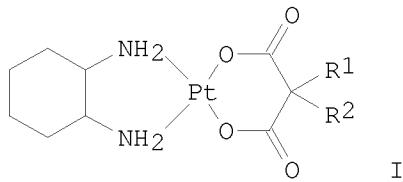
L7 ANSWER 52 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1991:75199 CAPLUS  
 DN 114:75199  
 OREF 114:12647a,12650a  
 TI Preparation of platinum complexes, and their use as antitumor agents  
 IN Yokoi, Koichi; Irinoda, Kazuhiko; Kohya, Hidehiko; Sato, Susumu; Katori,

PA Tatsuhiko  
 S. S. Pharmaceutical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 12 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 376076 R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE JP 02256690 CA 2005851 US 5008419	A1 A A1 A	19900704 19901017 19900627 19910416	EP 1989-123140 JP 1989-307218 CA 1989-2005851 US 1989-451637	19891214 <-- 19891127 <-- 19891218 <-- 19891218 <--
PRAI	JP 1988-330251	A	19881227		
OS	MARPAT 114:75199				
GI					



AB The title complexes I (R1, R2 = Me, Et) are provided; the configuration of the 1,2-diaminocyclohexane is cis-, trans-l-, trans-d-, or trans-dl-. I possess excellent antitumor activity with a high therapeutic index and abundant water-solubility, and are therefore effective as antitumor agents. Thus, (trans-dl-1,2-diaminocyclohexane)dimethylmalonatoplatinum(II) (II) was prepared in 2 steps from K tetrachloroplatinate. The LD50, ILS50 (dose for 50% increase in life span), and therapeutic index (LD50/ILS50) for II were 140 mg/kg, 3.4 mg/kg, and 41.2, resp.; the corresponding values for cisplatin were 18.0 mg/kg, 1.3 mg/kg, and 13.8, resp. The solubility of II and cisplatin in water was 8 and 1 mg/mL, resp. An injection formulation contained 20 mg II and water to 20 mL.

L7 ANSWER 53 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1991:16606 CAPLUS

DN 114:16606

OREF 114:2815a, 2818a

TI Platinum(II) complexes, their preparation, and use as antitumor agents  
 IN Spinelli, Silvano; Pasini, Alessandro; Menta, Ernesto; Zunino, Franco;  
 Tognella, Sergio

PA Boehringer Biochemia Robin S.p.A., Italy

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8909218 W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, RO, SD, SU, US RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG	A1	19891005	WO 1989-EP330	19890325 <--
	AU 8932927	A	19891016	AU 1989-32927	19890325 <--
	AU 633817	B2	19930211		

EP 341409	A1	19891115	EP 1989-105369	19890325 <--
EP 341409	B1	19931229		
R: ES, GR				
EP 415939	A1	19910313	EP 1989-903737	19890325 <--
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
HU 55401	A2	19910528	HU 1989-2555	19890325 <--
HU 206220	B	19920928		
JP 03503529	T	19910808	JP 1989-503437	19890325 <--
AT 99315	T	19940115	AT 1989-105369	19890325 <--
ES 2061756	T3	19941216	ES 1989-105369	19890325 <--
ZA 8902398	A	19891129	ZA 1989-2398	19890331 <--
DK 9002356	A	19900928	DK 1990-2356	19900928 <--
US 5104895	A	19920414	US 1990-585118	19901105 <--
PRAI IT 1988-20074	A	19880401		
EP 1989-105369	A	19890325		
WO 1989-EP330	A	19890325		
OS MARPAT 114:16606				
GI For diagram(s), see printed CA Issue.				
AB Compds. of formula I, (where R1 and R2, that can be the same or different, are H, alkyl, aryl, aralkyl groups or, if taken together, cycloalkyl groups; A is a C atom, a residue of 2,3-dioxybutandioic-2,4-dioxyphthalic acid or disubstituted malonic acid derivs.; n1 and n2 are selected in such a manner that the result of their addition is from 2-40; T1 and T2 that can be the same or different, are H, alkyl, benzyl, Ph, acyl, or cycloalkyl, or a residue of II-IV and V-VI) are useful as antitumor agents in human therapy.				

L7 ANSWER 54 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1990:110737 CAPLUS  
DN 112:110737  
OREF 112:18565a,18568a  
TI (Malonato)bis[sulfinylbis[methane]-S]platinum(II) compounds: versatile synthons for a new general synthesis of antitumor symmetrical and dissymmetrical (malonato)platinum(II) complexes  
AU Bitha, Panayota; Morton, George O.; Dunne, Theresa S.; Delos Santos, Eugenia F.; Lin, Yang I.; Boone, Steven R.; Haltiwanger, R. Curtis; Pierpont, Cortlandt G.  
CS Med. Res. Div., Am. Cyanamid Co., Pearl River, NY, 10965, USA  
SO Inorganic Chemistry (1990), 29(4), 645-52  
CODEN: INOCAJ; ISSN: 0020-1669  
DT Journal  
LA English  
AB cis-[Pt(OOCACOO)(Me<sub>2</sub>SO)<sub>2</sub>] (A = CH<sub>2</sub>, cycloalkyl) were prepared, and their reactions with various amines have led to a new general synthesis of antitumor sym. and dissym. (malonato)platinum(II) complexes. Reaction of trans-(--)-1,2-cyclohexanediamine (CHDA) with cis-[Pt(CBDC)(Me<sub>2</sub>SO)<sub>2</sub>] (H<sub>2</sub>CBDC = cyclobutanedicarboxylic acid) was studied in detail, and crystallog. mol. structure detns. were carried out on the Pt(CHDA)(Me<sub>2</sub>SO)(CBDC) (I) intermediate and the Pt(CHDA)(CBDC) (II). Crystals of I.13H<sub>2</sub>O grown from aqueous solution form as unstable hydrates, which rapidly lose water mols. of crystallization upon removal from the crystallization solution at room temperature. I.13H<sub>2</sub>O crystallizes in the noncentrosym. triclinic unit cell P1 with Z = 4, a = 10.998(3), b = 13.946(5), c = 15.163(5) Å, α = 65.39(2), β = 88.21(2), γ = 79.64(2)°. Complex mols. form as 2 independent H-bonded dimers, [Pt(CHDA)(Me<sub>2</sub>SO)(CBDC)]<sub>2</sub>, with H-bonded water mols. linking the 2 complex units. Pt atoms are 4-coordinate, bonded to the 2 nitrogens of CHDA, the S atom of the DMSO ligand, and one of the carboxylate O atoms of the monodentate CBDC ligand. Crystals of II.H<sub>2</sub>O obtained from aqueous solution form as hydrates in the noncentrosym. centered monoclinic unit cell C2, a = 24.889(16), b =

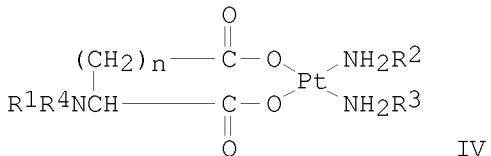
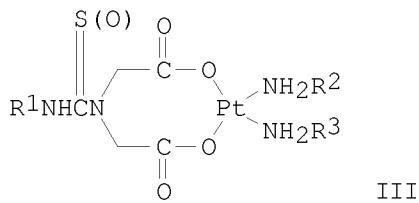
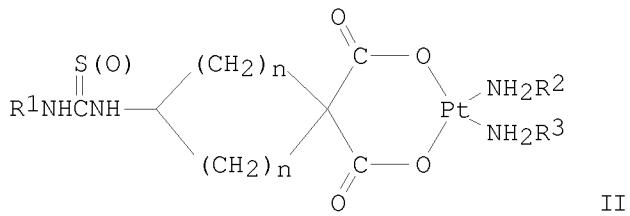
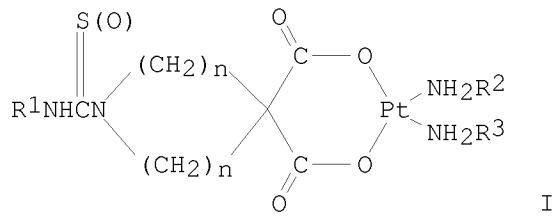
5.382(2), c = 11.426(4) Å, β = 106.97(2)°, Z = 1.

Displacement of the DMSO ligand of I results in chelation of the CBDC ligand in II. H<sub>2</sub>O in II.H<sub>2</sub>O is H bonded to O atoms of adjacent complex mols.

L7 ANSWER 55 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1990:110668 CAPLUS  
DN 112:110668  
OREF 112:18553a,18556a  
TI Syntheses of cis-dichlorodiammineplatinum analogs having steroidal hormones bound to the metal atom via malonato bridges  
AU Gandolfi, Ottavio; Apfelbaum, Haim C.; Migran, Yoelit; Blum, Jochanan  
CS Dep. Org. Chem., Hebrew Univ., Jerusalem, 91904, Israel  
SO Inorganica Chimica Acta (1989), 161(1), 113-123  
CODEN: ICHAA3; ISSN: 0020-1693  
DT Journal  
LA English  
AB In search for neutral, chemically stable, antitumor agents with target specificity, 27 steroidal Pt(II) malonate conjugates were prepared. Estrone, 17β-estradiol, testosterone, epitestosterone, pregnenolone, progesterone, 11α-hydroxyprogesterone, 21-desoxycorticosterone, prednisolone, lithocholic, desoxycholic and etienic acid residues were attached either directly or through stable bridges to malonic esters. Hydrolysis of 14 of the modified diesters with Ba(OH)<sub>2</sub> followed by treatment of the 14 barium salts, so formed, with cis-PtL<sub>2</sub>I<sub>2</sub> (L = NH<sub>3</sub>, cyclobutylamine, 0.5 en, 0.5 1,2-cyclohexanediamine) in the presence of aqueous Ag salts, afforded the desired steroidal, cis-Pt complexes.

L7 ANSWER 56 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1990:90426 CAPLUS  
DN 112:90426  
OREF 112:15171a,15174a  
TI Preparation of platinum compounds for the treatment of cancer  
IN Talebian, Abdolhossen; Green, Diana C.; Hammer, Charles F.; Schein, Philip S.  
PA Georgetown University, USA  
SO PCT Int. Appl., 48 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8900574	A1	19890126	WO 1988-US2353	19880718 <--
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 4895936	A	19900123	US 1988-143761	19880114 <--
	US 4895935	A	19900123	US 1988-143762	19880114 <--
	AU 8821230	A	19890213	AU 1988-21230	19880718 <--
	AU 615937	B2	19911017		
	EP 376959	A1	19900711	EP 1988-906550	19880718 <--
	EP 376959	B1	19930324		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03500532	T	19910207	JP 1988-506291	19880718 <--
	JP 2749092	B2	19980513		
	AT 87314	T	19930415	AT 1988-906550	19880718 <--
	CA 1330793	C	19940719	CA 1988-572280	19880718 <--
PRAI	US 1987-74825	A	19870717		
	US 1988-143761	A	19880114		
	US 1988-143762	A	19880114		
	EP 1988-906550	A	19880718		
	WO 1988-US2353	A	19880718		



AB Pt compds. (I-III; n = 1, 2; R1 = mono- or disaccharide or derivative thereof; R2, R3 = C1-4 alkyl or R2 and R3 together being linked to adjacent C's on a 5- or 6-membered ring) and (IV; n = 0, 1; R1 = H, mono- or disaccharide or derivative thereof linked to the N by NHCO, NHCS, CO; R2, R3 = H, C1-4 alkyl; or R2 and R3 together being linked to adjacent C's on a 4-, 5- or 6-membered ring or R2R3 forming a fused or bicyclic ring with adjacent C's; R4 = H, C1-4 alkyl; provided that R1 and R4 cannot both be H when n = 0) useful as anticancer agents, are prepared Reaction of 3,4,6-tri-O-acetyl-2-acetamido-2-deoxyglucopyranosyl isothiocyanate with aspartic acid in aqueous MeCN containing (iso-Pr)2NEt gave 2-[(3,4,6-tri-O-acetyl)-2-acetamido-2-deoxy- $\alpha$ -D-glucopyranosyl]amino]thiocarbonyl]amino]butanedioic acid. An aqueous solution

of

Ba salt of the latter and cis-sulfato-1,2-cyclohexanediamine-Pt(II) (preparation given) was agitated 2 h in N in the dark to give (S)-IV [R1 = [(3,4,6-tri-O-acetyl-2-acetamido-2-deoxy- $\alpha$ -D-glucopyranosyl)amino]thiocarbonyl, R2R3 = 1,2-cyclohexylidene, R4 = H] (V). V at 400 mg/kg showed 76% increased life span (ILS) of mice implanted i.p. with 1 + 106 P388 leukemia cells vs. 96% ILS for cisplatin at 10 mg/kg.

L7 ANSWER 57 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1990:660 CAPLUS

DN 112:660

OREF 112:123a,126a

TI Antitumor platinum(II) complexes

IN Nagai, Takashi; Miyakan, Isao; Kitayama, Isao; Funaki, Takashi; Tabiie, Nobuhisa; Miyahara, Maki; Hori, Takako

PA Toyama Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

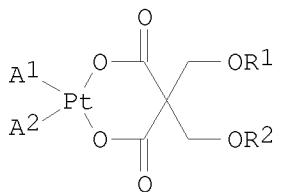
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63101391	A	19880506	JP 1986-246292	19861016 <--
	JP 07053746	B	19950607		
PRAI	JP 1986-246292		19861016		
OS	MARPAT 112:660				
GI					



AB *cis*-Pt (II) complexes (I; R1,R2 = phosphorylcholine, (un)substituted sulfamoyl or carbamoyl; A1,A2 = amine, cycloalkylamine, (un)substituted diamines, diamino compds., etc.) are antitumor agents.  
*cis*-(1,3-Disulfomoyltrimethylene glycol 2,2-dicarboxylate) (trans-dl-1,2-diaminocyclohexane) Pt (II) was prepared by reacting *cis*-dichloro(trans-dl-1,2-diaminocyclohexane) Pt (II) with AgNO<sub>3</sub> and then with 2,2-dicarboxy-1,3-disulfomoyltrimethylene glycol. The complex administered i.p. to L-1210 ascitic tumor cell-bearing mice prolonged the life span.

L7 ANSWER 58 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:566201 CAPLUS

DN 111:166201

OREF 111:27501a,27504a

TI Preparation of tetravalent platinum coordination compounds as antitumor agents

IN Kiss, Frantisek; Novotny, Jiri; Zavodna, Ivanka; Ruzicka, Dag

PA Czech.

SO Czech., 6 pp.

CODEN: CZXXA9

DT Patent

LA Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 255958	B1	19880415	CS 1985-5536	19850729 <--
PRAI	CS 1985-5536		19850729		
OS	MARPAT 111:166201				
AB	Title compds. A1A2Pt(OH) <sub>2</sub> X <sub>1</sub> X <sub>2</sub> (I; A1,A2 = H <sub>3</sub> N, aliphatic or alicyclic amine, or diamine; X <sub>1</sub> ,X <sub>2</sub> = halo, mono-, bi-, or tridentate organic acid ligand or hydroxy acid) are prepared by oxidation of A1A2PtX <sub>1</sub> X <sub>2</sub> (II).				
	<i>cis</i> -(Me <sub>2</sub> CHNH <sub>2</sub> ) <sub>2</sub> Pt(OH)Cl <sub>2</sub> was oxidized with 25% H <sub>2</sub> O <sub>2</sub> by ultrasound at 25 kHz to give <i>cis</i> -I (A1,A2 = Me <sub>2</sub> CHNH <sub>2</sub> ; X <sub>1</sub> ,X <sub>2</sub> = Cl) (III). Mice implanted with leukemia P388 and treated with III at 20-40 mg/kg showed 150-200% survival time, vs. controls.				

L7 ANSWER 59 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:489370 CAPLUS

DN 111:89370  
 OREF 111:14842h, 14843a  
 TI Antitumor steroid-platinum complexes and method for the preparation thereof  
 IN Gandolfi, Ottavio; Blum, Jochanan  
 PA Yissum Research Development Co., Israel  
 SO Israeli, 48 pp.  
 CODEN: ISXXAQ  
 DT Patent  
 LA English  
 FAN.CNT 1

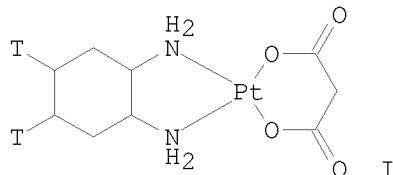
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI IL 73337	A	19880930	IL 1984-73337	19841028 <--
PRAI IL 1984-73337		19841028		
OS MARPAT 111:89370				

AB Antitumor-active steroid-substituted-malonato platinum complexes are prepared, which have the general formula  $G[(Z)nCONH]mCH(COO)2PtIIL_2$  (I), wherein L is a monodentate aliphatic amine ligand of the type  $H_2NR$ , where R is selected from H, OH, lower alkyl, cycloalkyl, hydroxy lower alkyl, lower alkoxy, and alkoxyamines; L<sub>2</sub> is a bidentate aliphatic amine ligand of the type  $H_2NCHR_1(CR_2R_3)pCHR_4NH_2$ , where p = 0 or 1, and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> are the same or different substituents and are selected from H, OH, lower alkyl, lower alkoxy, cycloalkyl; when p = 0, R<sub>1</sub> and R<sub>4</sub> can be combined through methylene or substituted methylene groups to form a cycloalkyl group; when p = 1, R<sub>1</sub> can be combined with R<sub>2</sub> or R<sub>2</sub> and R<sub>3</sub> can be combined with the C, to form, in each case, a cycloalkyl group; G is a steroid mol., either natural or synthetic, and is selected from cholesterol derivs., estrogens, progestagens, androgens, glucocorticoids and mineralocorticoids; m = 0 or 1; when m = 0; G is directly combined to the malonato ligand; when m = 1;  $[(Z)nCONH]$  is an organic bridging group, or organic spacer, which is combined on 1 end to G and, through the N, to the malonato ligand; n is 0 or 1; when n = 0, G is directly combined to the C atom of the CONH fragment of the organic bridging group; when n = 1, (Z) can be selected from alkyls, alkenyls, alkynyls or aliphatic groups bound to an aromatic moiety. [3 $\alpha$ -01-5 $\beta$ -Cholan-24-[N-(aminomalonic)carboxamido(2-)](diamine)platinum(II) was prepared, via a steroid-malonato derivative and the steroid-Ba salt, in 58% yield.

L7 ANSWER 60 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1989:489322 CAPLUS  
 DN 111:89322  
 OREF 111:14831a, 14834a  
 TI Water-soluble third generation antitumor platinum complexes, [2,2-bis(aminomethyl)-1,3-propanediol-N,N']-[1,1-cyclobutanedicarboxylato(2-)-O,O']platinum(II) and [1,1-cyclobutanedicarboxylato(2-)-O,O'][tetrahydro-4H-pyran-4,4-dimethanamine-N,N']platinum(II)  
 AU Bitha, Panayota; Carvajal, Suzanne G.; Citarella, Ronald V.; Child, Ralph G.; Delos Santos, Eugenia F.; Dunne, Theresa S.; Durr, Fredrick E.; Hlavka, Joseph J.; Lang, S. A., Jr.; et al.  
 CS Lederle Lab., Am. Cyan. Co., Pearl River, NY, 10965, USA  
 SO Journal of Medicinal Chemistry (1989), 32(8), 2015-20  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DT Journal  
 LA English  
 OS CASREACT 111:89322  
 AB cis-PtLC12 (L = 3,3-oxetanedimethanamine (OXTDMA), tetrahydro-4H-pyran-4,4-dimethanamine (THPDMA), trans-(+)-tetrahydro-3,4-furandiamine (THFDA), 2,2-bis(aminomethyl)-1,3-propanediol (BAMPDO), 2,3-diamino-1,4-butanediol

(DABDO)], *cis*-[PtL1(CBCD)] [H2CBCD = 1,1-cyclobutanedicarboxylic acid; L1 = L, 1,1-cyclobutanedimethanamine, 1,1-cyclohexanedimethanamine, trans-(+)-1,2-cyclohexanediamine, 2,2-dimethyl-1,3-propanediamine], *cis*-[PtL(O2CCH2CO2)] (L = OXTDMA, THPDMA, THFDA, DABDO), and *cis*-[PtLQ] (L = THPDMA, DAMPDO; H2Q = tetrahydro-4H-pyran-4,4-dicarboxylic acid) were prepared and their stability and antitumor activity determined. *cis*-Pt(BAMPDO)(CBDB)] and *cis*-Pt(THPDMA)(CBDB)] show the greatest antitumor activity. *cis*-[Pt(OXTDMA)(O2CCH2CO2)] is monoclinic, space group Pm, with Z = 2 whereas *cis*-[Pt(DABDO)(O2CCH2CO2)].H2O is orthorhombic, space group Pn21a, Z = 4.

L7 ANSWER 61 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1989:417083 CAPLUS  
 DN 111:17083  
 OREF 111:2875a,2878a  
 TI Disposition of cisplatin derivatives  
 3H-cis-1,2-diaminocyclohexanedichloroplatinum(II) and  
 3H-cis-1,2-diaminocyclohexanemalonatoplatinum(II) in BDF1 mice  
 AU Oswald, C. Brent; Wyrick, Steven D.; Chaney, Stephen G.; Shrewsbury,  
 Robert O.; Hall, Iris H.  
 CS Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
 SO Research Communications in Chemical Pathology and Pharmacology (1989), 64(1), 41-58  
 CODEN: RCOCB8; ISSN: 0034-5164  
 DT Journal  
 LA English  
 GI



AB The disposition of [3H]-*cis*-1,2-diaminocyclohexanedichloroplatinum(II) and [3H]-*cis*-1,2-diaminocyclohexanemalonatoplatinum(II) (I) was investigated in P388 tumor-bearing BDF1 mice. At 15 min after i.p. administration of the drugs, the serum contained 12% of the chloride derivative and 20% of the malonate derivative. Both drugs were distributed to all organs of the body but were not sequestered in any major internal organ. Substantial amounts of the drugs were found in the carcass and skin. After 24 h, approx. 43% of the radioactivity was excreted in the urine. Only 5-8% of the radioactivity was eliminated in the feces. The radioactivity half-lives ( $t_{1/2\beta}$ ) for the chloride and malonate derivs. were estimated from urinary excretion data to be 22.7 and 30.0 h, resp.

L7 ANSWER 62 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1989:416731 CAPLUS  
 DN 111:16731  
 OREF 111:2825a,2828a  
 TI Water-soluble platinum complexes of novel malonate derivatives for antitumor agents  
 IN Bitha, Panayota; Hlavka, Joseph John; Lin, Yang I.  
 PA American Cyanamid Co., USA  
 SO Eur. Pat. Appl., 23 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 304566	A2	19890301	EP 1988-109236	19880610 <--
	EP 304566	A3	19900912		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	US 4870070	A	19890926	US 1987-83325	19870810 <--
	JP 02048590	A	19900219	JP 1988-194705	19880805 <--
	CA 1276159	C	19901113	CA 1988-574072	19880808 <--
PRAI	US 1987-83325	A	19870810		
OS	MARPAT 111:16731				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. are prepared for use as antitumor agents. The compds. have the formula PtA<sub>1</sub>A<sub>2</sub>L<sub>1</sub>L<sub>2</sub>, where A<sub>1</sub>,A<sub>2</sub> = NH<sub>3</sub> or together are I and II; R<sub>1</sub>,R<sub>2</sub> = H, HO(CH<sub>2</sub>)<sub>m</sub> (n = 1-3), or C<sub>1</sub>-3 alkyl, and R<sub>1</sub> and R<sub>2</sub> together are (CH<sub>2</sub>)<sub>a</sub>B(CH<sub>2</sub>)<sub>b</sub> (B = O, SO<sub>2</sub>, CH<sub>2</sub>, or NR<sub>3</sub>; R<sub>3</sub> = C<sub>1</sub>-3 alkyl; a,b = 0-4), O(CH<sub>2</sub>)<sub>2</sub>OCH<sub>2</sub>, or III (R<sub>6</sub>,R<sub>7</sub> = H or C<sub>1</sub>-3 alkyl; in II, n,p = 0 or 1; R<sub>4</sub>,R<sub>5</sub> = HO(CH<sub>2</sub>)<sub>m</sub> (m = 1-3) or R<sub>4</sub> and R<sub>5</sub> together may be (CH<sub>2</sub>)<sub>r</sub>D(CH<sub>2</sub>)<sub>s</sub> (D = O, CH<sub>2</sub>, or CH(OH)CH(OH); r,s = 0-4) or OCR8R9O (R<sub>8</sub>,R<sub>9</sub> = H or C<sub>1</sub>-3 alkyl); and L<sub>1</sub> and L<sub>2</sub> together are IV (E = O, SO<sub>2</sub>, or NR<sub>10</sub>; R<sub>10</sub> = C<sub>1</sub>-3 alkyl; and t,u = 0-4), V, or VI. (1,3-Dioxane-4,4-dimethanamin-N,N') [tetrahydro-4H-pyran-4,4-dicarboxylato(2--O,O')]platinum was prepared (method given) and in a lymphocytic leukemia P388 test on BOF/1 mice, the test group had median survival 2915 days at dose 100 mg/kg and T/C 2.65, vs. median survival 10 days for a control group and vs. cisplatin 30 days at 4 mg/kg and T/C 3.00.

L7 ANSWER 63 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1989:241627 CAPLUS  
 DN 110:241627  
 OREF 110:39899a,39902a  
 TI Preparation and testing of platinum lactamcarboxylate diamine complexes as neoplasm inhibitors  
 IN Sugimura, Yokio; Kameyama, Yukiko; Hashimoto, Toshihiko; Iino, Kimio; Shibata, Tomoyuki; Muramatsu, Shigeki; Kobayashi, Tomowo  
 PA Sankyo Co., Ltd., Japan  
 SO Eur. Pat. Appl., 69 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 290280	A2	19881109	EP 1988-304140	19880506 <--
	EP 290280	A3	19900725		
	EP 290280	B1	19940119		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 01052789	A	19890228	JP 1988-109582	19880502 <--
	JP 2565541	B2	19961218		
	DK 8802526	A	19881109	DK 1988-2526	19880506 <--
	FI 8802130	A	19881109	FI 1988-2130	19880506 <--
	FI 87572	B	19921015		
	FI 87572	C	19930125		
	HU 47301	A2	19890228	HU 1988-2309	19880506 <--
	HU 199492	B	19900228		
	AT 100456	T	19940215	AT 1988-304140	19880506 <--

ES	2061646	T3	19941216	ES	1988-304140	19880506 <--
CN	1034544	A	19890809	CN	1988-103597	19880507 <--
CN	1017803	B	19920812			
AU	8815813	A	19881110	AU	1988-15813	19880509 <--
AU	617314	B2	19911128			
NO	8802012	A	19890227	NO	1988-2012	19880509 <--
NO	178069	B	19951009			
NO	178069	C	19960117			
CA	1308723	C	19921013	CA	1988-566294	19880509 <--
JP	01052790	A	19890228	JP	1988-115541	19880512 <--
JP	2543949	B2	19961016			
RU	2039064	C1	19950709	RU	1992-5011706	19920519 <--
US	5527905	A	19960618	US	1994-341702	19941118 <--
US	5633243	A	19970527	US	1995-472128	19950607 <--
PRAI	JP 1987-112181	A	19870508			
	JP 1987-114500	A	19870513			
	US 1988-189524	B1	19880503			
	EP 1988-304140	A	19880506			
	US 1990-485864	B1	19900223			
	US 1990-597117	B1	19901012			
	US 1991-782895	B1	19911023			
	US 1992-908827	B1	19920702			
	US 1993-148174	B1	19931104			
	US 1994-341702	A3	19941118			
OS	MARPAT 110:241627					
GI	For diagram(s), see printed CA Issue.					
AB	<p>The title compds. [I; A, B = C1-4 alkylamino, (substituted) arylamino; AB = H<sub>2</sub>NYNH<sub>2</sub>; Y = C<sub>2</sub>-7 alkylene, (substituted) arylene, heterocyclene; Z = Q<sub>1</sub>, Q<sub>2</sub>; R<sub>1</sub> = H, (substituted) C1-4 alkyl; C<sub>6</sub>-10 aryl, C<sub>5</sub>-10 heterocyclyl, C<sub>2</sub>-4 acylamino, C<sub>2</sub>-6 alkoxy carbonyl, C<sub>1</sub>-4 alkoxy, alkylthio, halo, CN, phthalimido; R<sub>2</sub> = H, (substituted) C1-4 alkyl, C<sub>6</sub>-10 aryl; R<sub>3</sub> = H, (substituted) C1-4 alkyl, C<sub>2</sub>-6 alkoxy carbonyl, CN; X = bond, C<sub>1</sub>-3 alkylene; n = 0-2], useful as neoplasm inhibitors, were prepared cis-(L-trans-1,2-Diaminocyclohexane)platinum (II) dinitrate was stirred in H<sub>2</sub>O at 28° overnight. 3S, 4R-3-[ (R)-1-tert-Butyldimethylsilyloxyethyl]-2-oxoazetidin-4-ylacetic acid in aqueous NaOH was added to give cis-(trans-L-1,2-diaminocyclohexane)platinum (II) [(3S, 4R)-3-[ (R)-1-tert-butyldimethylsilyloxyethyl]-2-oxoazotidin-4-yl]acetate (II). II at 2.5 mg/kg i.p. in mice infected with L1210 leukemia cells gave an ILS (increase in life span) of &gt;230%.</p>					

L7 ANSWER 64 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1989:146668 CAPLUS  
DN 110:146668  
OREF 110:24035a, 24038a  
TI Preparation of antitumor diaminodicarboxylatoplatinum compounds and their intermediates  
IN Bitha, Panayota; Hlavka, Joseph John; Lin, Yang I.  
PA American Cyanamid Co., USA  
SO Eur. Pat. Appl., 16 pp.  
CODEN: EPXXDW

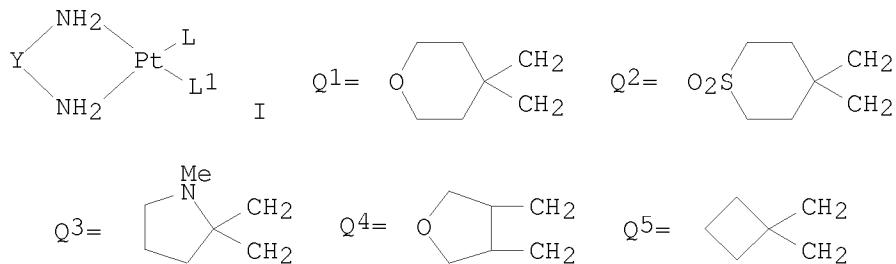
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 296321	A1	19881228	EP 1988-105673	19880409 <--
	EP 296321	B1	19920923		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	US 4808730	A	19890228	US 1987-65441	19870623 <--
	AT 80889	T	19921015	AT 1988-105673	19880409 <--
	ES 2043708	T3	19940101	ES 1988-105673	19880409 <--

IL	86209	A	19930513	IL	1988-86209	19880428 <--
IL	100582	A	19951208	IL	1988-100582	19880428 <--
CA	1308724	C	19921013	CA	1988-569940	19880621 <--
AU	8818251	A	19890105	AU	1988-18251	19880622 <--
AU	602589	B2	19901018			
JP	01026587	A	19890127	JP	1988-152455	19880622 <--
US	4937358	A	19900626	US	1988-281376	19881208 <--
US	4996337	A	19910226	US	1990-493043	19900313 <--
PRAI	US 1987-65441	A	19870623			
	EP 1988-105673	A	19880409			
	IL 1988-86209	A3	19880428			
	US 1988-281376	A3	19881208			
OS	MARPAT 110:146668					
GI						



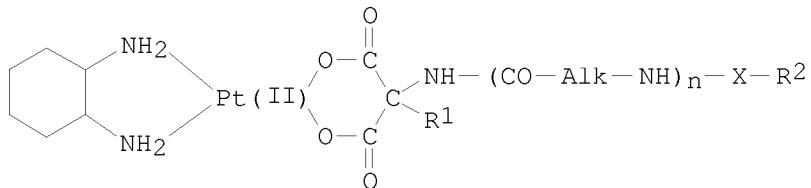
AB The title compds. [I; L, L1 = MeCO<sub>2</sub>, HOCH<sub>2</sub>CO<sub>2</sub>, MeCH<sub>2</sub>CO<sub>2</sub>; LL1 = R<sub>1</sub>R<sub>2</sub>C(CO<sub>2</sub>)<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub> = H, C<sub>1-5</sub> alkyl; R<sub>1</sub>R<sub>2</sub> = (CH<sub>2</sub>)<sub>n</sub>; n = 2-5; Y = Q<sub>1</sub>-Q<sub>5</sub>, etc.], useful as neoplasm inhibitors (no data), were prepared K<sub>2</sub>PtCl<sub>4</sub> in H<sub>2</sub>O was treated with Me<sub>2</sub>SO and the mixture was allowed to stand 12 h to give (Me<sub>2</sub>SO)<sub>2</sub>PtCl<sub>2</sub>. The latter was stirred with 1,1-cyclobutanedicarboxylic acid in the dark for 12 h to give 1,1-cyclobutanedicarboxylatobis(sulfinylbismethane)platinum. The latter in H<sub>2</sub>O was refluxed with trans-(--)-1,2-cyclohexanediamine for 6 h to give (1,1-cyclobutanedicarboxylato)[trans-(--)-1,2-cyclohexanediamine]platinum.

L7 ANSWER 65 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1989:107119 CAPLUS  
DN 110:107119  
OREF 110:17511a,17514a  
TI Preparation of (1,2-diaminocyclohexane)platinum malonates as antitumor agents  
IN Tsujihara, Kenji; Ohtsuki, Osamu; Nakatani, Tadashi; Arai, Yoshihisa  
PA Tanabe Seiyaku Co., Ltd., Japan  
SO Eur. Pat. Appl., 15 pp.  
CODEN: EPXXDW

DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI EP 281412	A2	19880907	EP 1988-301905	19880304 <--
EP 281412	A3	19881221		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 64000094	A	19890105	JP 1988-51178	19880303 <--
DK 8801204	A	19880907	DK 1988-1204	19880304 <--
FI 8801008	A	19880907	FI 1988-1008	19880304 <--
AU 8812687	A	19880908	AU 1988-12687	19880304 <--
AU 604299	B2	19901213		
HU 47124	A2	19890130	HU 1988-1066	19880304 <--

HU 198731 B 19891128  
 US 4886894 A 19891212 US 1988-164489 19880304 <--  
 CN 88101195 A 19880928 CN 1988-101195 19880305 <--  
 PRAI JP 1987-52823 A 19870306  
 OS CASREACT 110:107119; MARPAT 110:107119  
 GI



I

AB Title compns. I [R1 = H, alkyl, R2 = H, (substituted) alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, amino, heterocyclyl; X = CO, SO2; alkalkylene; n = 1,2] are prepared as antitumor agents (no data). An aqueous solution of 0.87 g (trans-(1)-1,2-diaminocyclohexane)platinum dinitrate was treated with 0.65 g di-Na 2-[[N-(chloroacetyl)glycyl]amino]malonate at room temperature and stirred for 5 h to give [trans-(1)-1,2-diaminocyclohexane]platinum 2-[[N-(chloroacetyl)glycyl]amino]malonate.

L7 ANSWER 66 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:50221 CAPLUS

DN 110:50221

OREF 110:8122h, 8123a

TI Preparation of diaminocyclohexane platinum malonates as antitumor agents

IN Tsujihara, Kenji; Otsuki, Osamu; Nakatani, Tadashi; Arai, Yoshihisa

PA Tanabe Seiyaku Co., Ltd., Japan

SO Eur. Pat. Appl., 17 pp.

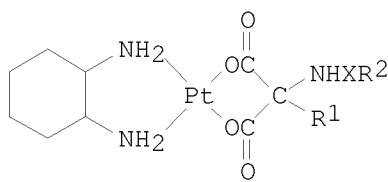
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 284197	A1	19880928	EP 1988-301415	19880219 <--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 64000093	A	19890105	JP 1988-38247	19880219 <--
	US 4882447	A	19891121	US 1988-157969	19880219 <--
PRAI	JP 1987-38240	A	19870220		
OS	MARPAT 110:50221				
GI					



I

AB The title compds. I [R1 = H, alkyl; R2 = (substituted) C1-6 alkyl,

(CH<sub>2</sub>CH<sub>2</sub>O)Me, alkenyl, alkanoyl, amino, heterocyclyl; X = CO, sulfonyl; m = 1,2] are prepared as antitumor agents. Reaction of 0.87 g aqueous (trans-1-1,2-diaminocyclohexane)platinum dinitrate and 0.45 g di-Na 2-(acetylamino)malonate (preparation given) at room temperature over 5 h gave 0.51 g (trans-1-1,2-diaminocyclohexane)platinum(II) [2-(acetylamino)malonate] which at 50 mg/kg/day s.c. in mice gave an 89% inhibition rate against sarcoma cells.

L7 ANSWER 67 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:44794 CAPLUS

DN 110:44794

OREF 110:7335a,7338a

TI Water soluble 1,2-diaminocyclohexane-platinum(II) complexes: problems of purification; stability of complexes with nitrogen-containing ligands

AU Roberts, John D.; Schmidt, Wendelyn J.; Tong, William P.; Hacker, Miles P.

CS Vermont Reg. Cancer Cent., Univ. Vermont, Burlington, VT, 05401, USA

SO Inorganica Chimica Acta (1988), 153(2), 123-7

CODEN: ICHAA3; ISSN: 0020-1693

DT Journal

LA English

AB Water soluble 1,2-diaminocyclohexaneplatinum(II) antitumor complexes with N-containing dicarboxylato ligands have significant residual impurities as shown by preparative HPLC. Upon further purification, each complex was converted to stable but less active or inactive products. It is possible that tridentate bonding between the N-containing dicarboxylato group and Pt rendered those complexes chemical stable and biol. inert.

L7 ANSWER 68 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:23375 CAPLUS

DN 110:23375

OREF 110:3941a,3944a

TI Tritiated platinum antitumor agents containing the trans-(d,1)-1,2-diaminocyclohexane carrier ligand

AU Wyrick, Steven D.; Chaney, Stephen G.

CS Sch. Med., Univ. North Carolina, Chapel Hill, NC, 27514, USA

SO Journal of Labelled Compounds and Radiopharmaceuticals (1988), 25(4), 349-57

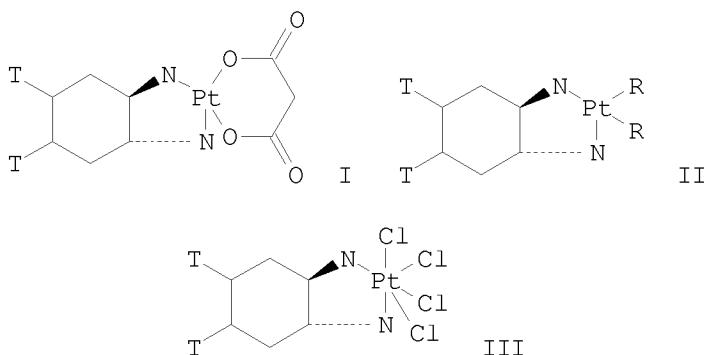
CODEN: JLCRD4; ISSN: 0362-4803

DT Journal

LA English

OS CASREACT 110:23375

GI



AB Four T-labeled diaminocyclohexane-Pt complexes I (R = Cl, NO<sub>3</sub>), II, and III were prepared from K<sub>2</sub>PtCl<sub>4</sub> and the corresponding tritiated trans-diaminocyclohexane. This compound was prepared in turn by catalytic reduction of the diaminocyclohexene precursor with carrier-free T gas over 10% Pd-C.

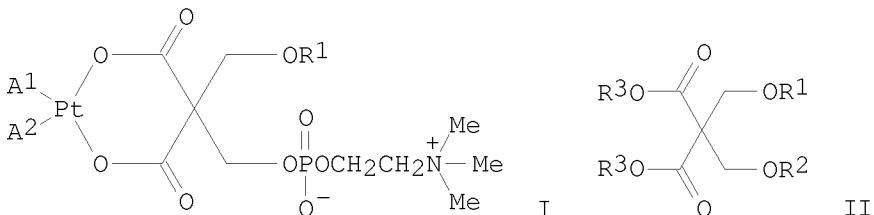
L7 ANSWER 69 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1988:643074 CAPLUS  
DN 109:243074  
OREF 109:40019a,40022a  
TI Preparation of 1,2-diaminocyclohexane-platinum complexes with antitumor activity  
IN Khokhar, Abdul R.; Newman, Robert A.; Krakoff, Irwin H.  
PA University of Texas System, USA  
SO PCT Int. Appl., 35 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8803925	A1	19880602	WO 1987-US2996	19871116 <--
	W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU				
	RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
	US 5011959	A	19910430	US 1986-932176	19861117 <--
	AU 8783359	A	19880616	AU 1987-83359	19871116 <--
	EP 333756	A1	19890927	EP 1987-908064	19871116 <--
	EP 333756	B1	19920115		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 02500745	T	19900315	JP 1988-500306	19871116 <--
	AT 71630	T	19920215	AT 1987-908064	19871116 <--
PRAI	US 1986-932176	A	19861117		
	EP 1987-908064	A	19871116		
	WO 1987-US2996	A	19871116		
OS	MARPAT 109:243074				
AB	Water-soluble, square planar, title compds. (I) are prepared as antitumor agents. An aqueous solution of 0.423 g trans-(R,R)-1,2-diamiocyclohexaneplatinum sulfate was treated with 0.332 g Ba ethyleneiminodiacetate. The reaction was stirred 0.5 h, BaSO <sub>4</sub> was removed, and 56% (trans-(R,R)-1,2-diamiocyclohexane)platinum N-ethyleneiminodiacetate was isolated. This had an optimal dose of 3.15 mg/kg administered over 9 days and a T/C of 434% in tests against L1210 leukemia in vivo using mice.				

L7 ANSWER 70 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1988:503636 CAPLUS  
DN 109:103636  
OREF 109:17114h,17115a  
TI Preparation of cis-platinum(II) complexes containing phospholipid as antitumor agents  
IN Nagai, Takashi; Miyokan, Isao; Kitayama, Isao; Funaki, Takashi; Tabiee, Nobuhisa; Miyahara, Maki; Hori, Takako  
PA Toyama Chemical Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 62298597 A 19871225 JP 1986-142160 19860618 <--  
 JP 07053745 B 19950607  
 PRAI JP 1986-142160 19860618  
 OS CASREACT 109:103636  
 GI



**AB** The title compds. [I; A1, A2 = ammine, (substituted) alkylamine, cycloalkylamine; or A1A2 = bidentate amine; R1 = H, fatty acid residue], useful as antitumor agents, are prepared  $\text{H}_2\text{C}[\text{CO}_2\text{CHPh}_2]_2$  was hydroxymethylated with  $\text{HCHO}$  to give diol II ( $\text{R}1 = \text{R}2 = \text{H}$ ,  $\text{R}3 = \text{CHPh}_2$ ) which was acylated with stearic acid to give monoester II [ $\text{R}1 = \text{Me}(\text{CH}_2)_16\text{CO}$ ,  $\text{R}2 = \text{H}$ ,  $\text{R}3 = \text{CHPh}_2$ ] which was esterified with  $\text{BrCH}_2\text{CH}_2\text{OPC}_12$  to give bromoethyl phosphate II [ $\text{R}1 = \text{Me}(\text{CH}_2)_16\text{CO}$ ,  $\text{R}2 = (\text{HO})\text{P}(\text{O})\text{OCH}_2\text{CH}_2\text{Br}$ ,  $\text{R}3 = \text{CHPh}_2$ ] (III). III was quaternized with  $\text{Me}_3\text{N}$  to give trimethylammonioethyl phosphate II [ $\text{R}1 = \text{Me}(\text{CH}_2)_16\text{CO}$ ,  $\text{R}2 = (\text{O}-)\text{P}(\text{O})\text{OCH}_2\text{CH}_2\text{N}^+ + \text{Me}_3$ ,  $\text{R}3 = \text{CHPh}_2$ ] hydrate which was then deprotected to give dicarboxylic acid II [ $\text{R}1 = \text{Me}(\text{CH}_2)_16\text{CO}$ ,  $\text{R}2 = (\text{O}-)\text{P}(\text{O})\text{OCH}_2\text{CH}_2\text{N}^+ + \text{Me}_3$ ,  $\text{R}3 = \text{H}$ ] hydrate which (389 mg) in water at pH 6-7 was stirred with addition of aqueous cis- $\text{Pt}(\text{NH}_3)_2(\text{NO}_3)_2$  in darkness for 2 h to give Pt complex cis-I [A1 = A2 =  $\text{NH}_3$ ,  $\text{R}1 = \text{Me}(\text{CH}_2)_16\text{CO}$ ]. Sep. prepared cis-I [A1A2 = trans-dl-1,2-diaminocyclohexane,  $\text{R}1 = \text{Ac}$ ] showed  $\text{IC}_{50}$  of 0.31  $\mu\text{g}/\text{mL}$  against L-1210 tumor cells in RPMI-culture, increased the survival rate to >190% at 11.5  $\mu\text{mol}/\text{kg}$  in mice having ascite tumor, and  $\text{LD}_{50}$  of 80 mg/kg i.p. in mice, vs. 0.48  $\mu\text{g}/\text{mL}$ , >168% at 10.0  $\mu\text{mol}/\text{kg}$ , and 14 mg/kg, resp., for cisplatin.

L7 ANSWER 71 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1988:484995 CAPLUS

DN 109:84995

OREF 109:14023a,14026a

TI Antitumor activity and property of platinum(IV) complexes containing 1,2-cyclohexanediamine and 2-(aminomethyl)cyclohexylamine isomers

AU Noji, Masahide; Sumi, Maki; Ohmori, Takayuki; Mizuno, Mayumi; Suzuki, Kenjiro; Tashiro, Tazuko; Kidani, Yoshinori

CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467, Japan

SO Nippon Kagaku Kaishi (1988), (4), 675-83

CODEN: NKAKB8; ISSN: 0369-4577

DT Journal

LA Japanese

AB Sixteen Pt(IV) complexes, containing 1,2-cyclohexanediamine (dach) or 2-(aminomethyl)cyclohexylamine (amcha), were prepared as a carrier ligand to increase water-solubility of the corresponding Pt(II) complexes. Their antitumor activity was tested against murine leukemia L 1210, and almost all of the Pt(IV) complexes tested were antitumor active. Pt(IV) dach complexes showed higher antitumor activity than Pt(IV) amcha complexes and among the former complexes, Pt(IV) complexes containing l-dach exhibited higher activity than those of other dach isomers, i.e., meso- and d-dach. trans-PtCl<sub>2</sub>L(l-dach) ( $\text{H}_2\text{L} = \text{oxalic, malonic acids}$ ) and trans-PtCl<sub>2</sub>(C<sub>2</sub>O<sub>4</sub>) (Dl-trans-amcha) exhibited excellent antitumor activity.

In general, the reactivity of Pt(IV) complexes is low compared with that of Pt(II) complexes. Pt(IV) dach complexes were easily photoreduced by ascorbic acid which may support indirectly the hypothesis that Pt(IV) complexes are not antitumor active, instead their reduced Pt(II) complexes are responsible for the activity.

L7 ANSWER 72 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1988:215203 CAPLUS  
 DN 108:215203  
 OREF 108:35183a,35186a  
 TI A convenient method for the preparation of antitumor carboxylato(1,2-diaminocyclohexane)platinum(II) complexes  
 AU Khokhar, Abdul R.; Lumetta, Gregg; Doran, Sheryl L.  
 CS Dep. Med. Oncol., Univ. Texas, Houston, TX, 77030, USA  
 SO Inorganica Chimica Acta (1988), 151(2), 87-8  
 CODEN: ICHAA3; ISSN: 0020-1693  
 DT Journal  
 LA English  
 AB PtCl<sub>2</sub>(DACH) (DACH = 1,2-diaminocyclohexane) reacted with Ag<sub>2</sub>CO<sub>3</sub> under N to give Pt(CO<sub>3</sub>)(DACH) (I). I reacted with malonic acid (H<sub>2</sub>L) or 1,1-cyclobutanedicarboxylic acid (H<sub>2</sub>L<sub>1</sub>) to give PtL<sub>2</sub>(DACH) (H<sub>2</sub>L<sub>2</sub> = H<sub>2</sub>L, H<sub>2</sub>L<sub>1</sub>). The complexes were characterized by IR spectra.

L7 ANSWER 73 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1988:178947 CAPLUS  
 DN 108:178947  
 OREF 108:29215a,29218a  
 TI A new synthetic method for diaminomalonato platinum type complexes and the unexpected behavior of dichloro(trans-1,2-diaminocyclohexane)platinum  
 AU Pasini, Alessandro; Caldirola, Cristina  
 CS Dip. Chim. Inorg. Metallorg., Univ. Milano, Milan, 20133, Italy  
 SO Inorganica Chimica Acta (1988), 151(1), 19-20  
 CODEN: ICHAA3; ISSN: 0020-1693  
 DT Journal  
 LA English  
 AB cis-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> in DMF reacted with 1,1-cyclobutanedicarboxylic acid (H<sub>2</sub>L), followed by addition of KOH, to give Pt(NH<sub>3</sub>)<sub>2</sub>L in 80% yield; when cis-Pt(NH<sub>3</sub>)<sub>2</sub> was used the yield was 40%. Pt(NH<sub>3</sub>)<sub>2</sub>L<sub>1</sub> (H<sub>2</sub>L<sub>1</sub> = malonic acid (H<sub>2</sub>mal), 2-hydroxymalonic acid), PtQL<sub>2</sub> (Q = en, trans-diaminocyclohexane; H<sub>2</sub>L<sub>2</sub> = H<sub>2</sub>L and H<sub>2</sub>mal; Q = cis-diaminocyclohexane, HOCH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, H<sub>2</sub>L<sub>2</sub> = H<sub>2</sub>L) were prepared similarly. The reaction of PtQC<sub>2</sub> (Q = I) with H<sub>2</sub>mal gave a mixture of products, [PtQ(H<sub>2</sub>O)<sub>2</sub>]mal being the predominant.

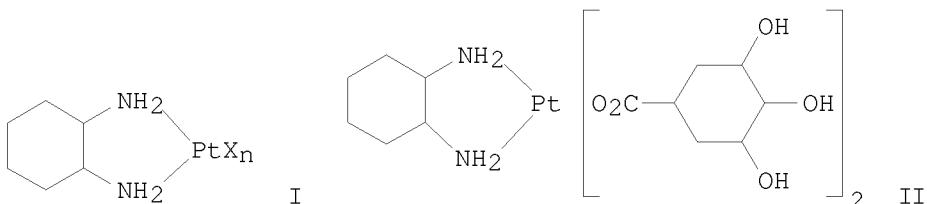
L7 ANSWER 74 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1988:48204 CAPLUS  
 DN 108:48204  
 OREF 108:7876h,7877a  
 TI Preparation of cyclohexanediamine platinum complexes as antitumor agents  
 IN Brown, David B.; Khokhar, Abdul R.; Hacker, Miles P.; McCormack, John J.  
 PA Research Corp., USA  
 SO U.S., 20 pp. Cont.-in-part of U.S. Ser. No. 636,522, abandoned.  
 CODEN: USXXAM

DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4661516	A	19870428	US 1985-723107	19850415 <--
	US 4758588	A	19880719	US 1987-15643	19870217 <--
PRAI	US 1983-505965	A2	19830620		
	CA 1984-456842	A	19840618		
	US 1984-636522	A2	19840801		

DK	1984-3016	A	19840620
EP	1984-107104	A	19840620
GR	1984-75062	A	19840620
IE	1984-1545	A	19840620
JP	1984-128388	A	19840620
US	1985-723107	A3	19850415

GI



AB The title compds. I ( $n = 1, 2$ ; X = monovalent anions such as isethionate, monosaccharate, proline, cycloalkenecarboxylate, alkanesulfonate etc., or X = divalent anions such as iminodiacetate, isocitrate lactone, furanedicarboxylate etc.) are prepared as antitumor agents. An aqueous solution of 1.0 mmol (1,2-diaminocyclohexane)platinum sulfate was treated with 1.0 mmol Ba shikimate. The solution was stirred at room temperature for 20 mins and BaSO<sub>4</sub> was filtered off leaving 80 % cis-(1,2-diaminocyclohexane)platinum bis(shikimate) (II). At 100 mg/kg i.p. in mice II had T/C % of 217 against L1210 tumor cells.

L7 ANSWER 75 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1987:629147 CAPLUS

DN 107:229147

OREF 107:36623a, 36626a

TI Novel platinum(II) complexes as neoplasm inhibitors

IN Yoshitani, Yoshitoku; Nomichi, Masahide

PA Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

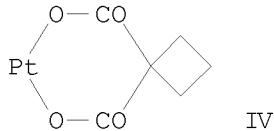
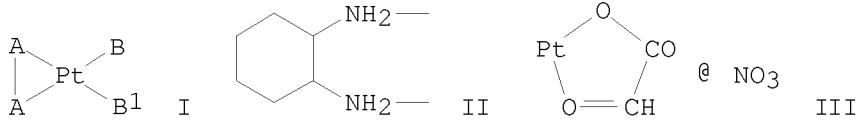
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62059289	A	19870314	JP 1985-196887	19850907 <--
PRAI	JP 1985-196887		19850907		

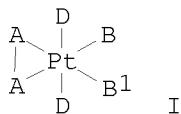
GI



AB Novel Pt(II) complexes I (cyclic A-A = II, etc; B and B' may link to form III or IV; or B, B' = OCOCOME) show antitumor activities.  
 1,1-Cyclobutanedicarboxylate-(trans-1-1,2-cyclohexanediamine)platinum(II) complex (50 mg/kg) administered to leukemia L-1210 cell-bearing CDF mice (on days 1, 5, and 9 after cancer cell inoculation) prolonged the survival time by 235%. For preparation of the Pt(II) complex, (cis-1,2-cyclohexanediamine)platinum nitrate was combined with 1,1-cyclobutanedicarboxylic acid.

L7 ANSWER 76 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1987:627935 CAPLUS  
 DN 107:227935  
 OREF 107:36417a,36420a  
 TI Preparation of aminoplatinum complexes as antitumor agents  
 IN Kidani, Yoshinori; Noji, Masahide  
 PA Japan  
 SO Eur. Pat. Appl., 56 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 237450	A2	19870916	EP 1987-420061	19870304 <--
	EP 237450	A3	19880107		
	EP 237450	B1	19910515		
	R: DE, FR, GB				
	JP 62207283	A	19870911	JP 1986-48625	19860307 <--
	JP 04062320	B	19921005		
	US 4845124	A	19890704	US 1987-20893	19870302 <--
PRAI	JP 1986-48625	A	19860307		
OS	MARPAT 107:227935				
GI					



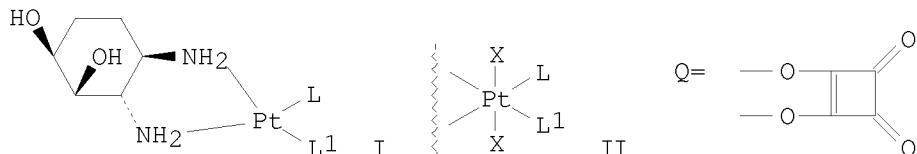
AB Title complexes I [AA = 1,2-cyclohexanediamine 2-(aminomethyl)cyclohexylamine; B,B1 = Cl; BB1 = bidentate carboxylato; D = Cl, NO<sub>3</sub>, OH] are prepared as antitumor agents. An aqueous suspension of cis-(1,2-cyclohexanediamine)PtCl<sub>2</sub> was chlorinated by bubbling Cl<sub>2</sub> into the suspension for 40 min at 80° to give cis(1,2-cyclohexanediamine)PtCl<sub>4</sub>, which at 6.25 mg/kg i.p. produced a 202 % prolongation of the mean survival period in tests against L-1210 leukemia in mice.

L7 ANSWER 77 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1987:589633 CAPLUS  
 DN 107:189633  
 OREF 107:30219a,30222a  
 TI Hydroxylated 1,2-diaminocyclohexane platinum complexes  
 IN Hlavka, Joseph J.; Lin, Yang I.; Bitha, Panayota  
 PA American Cyanamid Co., USA  
 SO U.S., 7 pp.  
 CODEN: USXXAM  
 DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4670458	A	19870602	US 1986-824479	19860131 <--
	EP 232785	A1	19870819	EP 1987-101032	19870126 <--
	EP 232785	B1	19910130		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	AT 60574	T	19910215	AT 1987-101032	19870126 <--
	ES 2031837	T3	19930101	ES 1987-101032	19870126 <--
	CA 1271774	A1	19900717	CA 1987-528459	19870129 <--
	JP 62246543	A	19871027	JP 1987-21640	19870131 <--
PRAI	US 1986-824479	A	19860131		
	EP 1987-101032	A	19870126		
OS	MARPAT 107:189633				
GI					



AB The title compds. [I and II; L, L1 = halo, NO3-, SO42-, monobasic carboxylate such as AcO-, HOCH2CO2-; LL1 = Q, O2CZCO2; X = OH, halo; Z = bond, (CH2)n, MeCH, CH2S(O)2CH2, CHCH2CO2H, CH2N(CH2CO2H)CH2, CH(CH2CO2H)CH2, C(OH)(CH2CO2H)CH2, CH2CH(CH2CO2H)CH2; (n = 1-3], useful as antitumor agents, were prepared Cycloaddn. of 1-chloro-1-nitrosocyclohexane with 1,3-cyclohexadiene in CC14 at -20° for 6 days and reduction of the resulting 2-oxa-3-azabicyclo[2.2.2]oct-5-ene-HCl with Zn and concentrated HCl gave cis-4-amino-2-cyclohexen-1-ol which was acetylated with Ac2O in pyridine to give cis-3-acetoxy-6-acetamidocyclohexene. Epoxidn. of the latter with 75% H2O2 and (CF3CO)2O in CH2Cl2 at 0° followed by amination with concentrated NH4OH in MeOH under reflux gave, after hydrolysis with concentrated HCl, (1α,2α,3β,4α)-3,4-diamino-1,2-cyclohexanediol. Reaction of the latter with K2PtCl4 in H2O at pH 7.9 gave I (L = L1 = Cl) (II). At 3 mg/kg and 12 mg/kg II prolonged by 61% and >130% the life span of mice transplanted with melanoma B16 and colon 26 adenocarcinoma, resp.

L7 ANSWER 78 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1987:188561 CAPLUS

DN 106:188561

OREF 106:30409a,30412a

TI Syntheses and antitumor activities of 1R,2R-cyclohexanediamine platinum(II) complexes containing dicarboxylates

AU Noji, Masahide; Suzuki, Kenjiro; Tashiro, Tazuko; Suzuki, Makoto; Harada, Kenichi; Masuda, Katsuyoshi; Kidani, Yoshinori

CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467, Japan

SO Chemical & Pharmaceutical Bulletin (1987), 35(1), 221-8  
CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

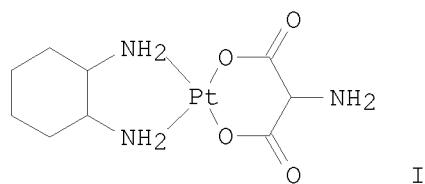
AB New 1R,2R-cyclohexanediamine (1R,2R-dach) Pt(II) complexes containing dicarboxylate ions, i.e., ketomalonate, malate, saccharate, glutarate, diphenate, and α,β-diphenylsuccinate were synthesized and tested against leukemia L1210 in vivo. All of the dicarboxylato Pt(II) complexes showed relatively high antitumor activities with T/C% values of

>200 at optimal doses. In particular, mucato [97335-99-4] and  $\alpha, \beta$ -diphenylsuccinato Pt(II) complexes [97313-12-7] exhibited excellent antitumor activities with T/C% values of 348 and 369, resp., with 3 cured mice out of 6. The dicarboxylato Pt(II) complexes were determined by elemental analyses to contain dicarboxylates:Pt:1R,2R-dach in a ratio of 1:1:1. The mol. secondary ion mass spectra of saccharato [107999-25-7] andglutarato Pt(II) complexes [63037-38-7] indicate that these complexes exist in a binuclear form together with a mononuclear form in aqueous solution

L7 ANSWER 79 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1987:187804 CAPLUS  
DN 106:187804  
OREF 106:30289a,30292a  
TI Aminomalonato(1,2-diaminocyclohexane)platinum(II): a competitive antitumor compound within a new class of neutral, chemically stable, water soluble, functionalized platinum(II) complexes  
AU Gandolfi, Ottavio; Apfelbaum, Haim C.; Blum, Jochanan  
CS Dep. Org. Chem., Hebrew Univ. Jerusalem, Jerusalem, 91904, Israel  
SO Inorganica Chimica Acta (1987), 135(1), 27-31  
CODEN: ICHAA3; ISSN: 0020-1693  
DT Journal  
LA English  
AB Antitumor, neutral, chemical stable, water-soluble and functionalized aminomalonato-Pt(II) complexes were prepared and their mode of coordination characterized by elemental anal. and IR spectra. Among this new class of compds., (aminomalonato)(1,2-diaminocyclohexane)platinum(II) was selected for  $^{13}\text{C}$  NMR measurements and for initial evaluation against L 1210 and B 16 melanoma. The preliminary biol. results reveal the high antineoplastic potential of this compound

L7 ANSWER 80 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1987:67509 CAPLUS  
DN 106:67509  
OREF 106:11114h,11115a  
TI Organoplatinum(II) complexes as antitumor agents  
IN Gandolfi, Ottavio  
PA Yissum Research Development Co., Israel  
SO U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 572,180 abandoned.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4614811	A	19860930	US 1985-713178	19850318 <--
IL 67789	A	19860930	IL 1983-67789	19830131 <--
PRAI IL 1983-67789	A	19830131		
US 1984-572180	A2	19840119		
OS MARPAT 106:67509				
GI				



AB L<sub>2</sub>Pt(O<sub>2</sub>C)<sub>2</sub>CHNH<sub>2</sub> (L = monodentate aliphatic amine or one bidentate aliphatic amine) are prepared as antitumor agents by a substitution reaction of NH<sub>2</sub>CH(CO<sub>2</sub><sup>-</sup>)<sub>2</sub>Ba<sup>2+</sup> with L<sub>2</sub>PtSO<sub>4</sub>. Thus, a suspension of NH<sub>2</sub>CH(CO<sub>2</sub><sup>-</sup>)<sub>2</sub>Ba<sup>2+</sup> 1, AgSO<sub>4</sub> 0.53, and L<sub>2</sub>PtI<sub>2</sub> (L = 1,2-diaminocyclohexane) 1 g was stirred for 0.5 h at 50°, and AgI and BaSO<sub>4</sub> were removed to give 88% I which proved highly effective against L1210 leukemia at 16-64 mg/kg i.p. or i.v. in mice.

L7 ANSWER 81 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1987:50469 CAPLUS

DN 106:50469

OREF 106:8367a,8370a

TI Platinum complexes of aliphatic tricarboxylic acid

IN Bitha, Panayota; Child, Ralph Grassing; Hlavka, Joseph John; Lin, Yang I.

PA American Cyanamid Co., USA

SO Eur. Pat. Appl., 43 pp.

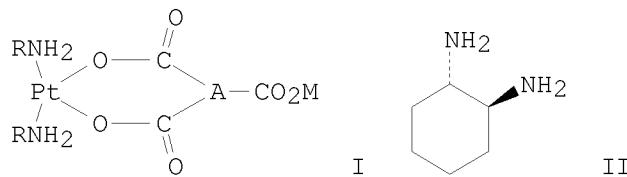
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 185225	A1	19860625	EP 1985-114932	19851126 <--
	EP 185225	B1	19900103		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	US 4665210	A	19870512	US 1985-790601	19851028 <--
	AT 49214	T	19900115	AT 1985-114932	19851126 <--
	IL 77190	A	19881230	IL 1985-77190	19851201 <--
	ZA 8509572	A	19860827	ZA 1985-9572	19851213 <--
	CA 1241338	A1	19880830	CA 1985-497565	19851213 <--
	DK 8505827	A	19860618	DK 1985-5827	19851216 <--
	FI 8504970	A	19860618	FI 1985-4970	19851216 <--
	FI 79541	B	19890929		
	FI 79541	C	19900110		
	NO 8505044	A	19860618	NO 1985-5044	19851216 <--
	AU 8551249	A	19860626	AU 1985-51249	19851216 <--
	AU 569425	B2	19880128		
	JP 61171496	A	19860802	JP 1985-281237	19851216 <--
	PL 149311	B1	19900228	PL 1985-256836	19851216 <--
	HU 39753	A2	19861029	HU 1985-4824	19851217 <--
	HU 193840	B	19871228		
PRAI	US 1984-682951	A	19841217		
	EP 1985-114932	A	19851126		
OS	MARPAT 106:50469				
GI					



AB The title compds. I (R = H, alkyl; RR = cycloalkyldiyl; A = trivalent aliphatic hydrocarbyl; M = H, Na, K), useful as anticancer agents, are prepared. Thus, 4.56 II was treated with 16.6 g K<sub>2</sub>PtCl<sub>4</sub> in H<sub>2</sub>O, and the product was treated with AgNO<sub>3</sub> and HOOCCH<sub>2</sub>CH(CO<sub>2</sub>H)<sub>2</sub> to give 0.868 g I (RR =

1,2-cyclohexanediyl; A = CH<sub>2</sub>CH; M = H) which at 12.5 mg/kg i.p. in mice having lymphocytic leukemia L 1210, showed a median survival rate of 17.8 days vs. 9.2 days for 6 mg/kg i.p. cisplatin.

L7 ANSWER 82 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1987:62 CAPLUS  
DN 106:62  
OREF 106:3a,6a  
TI High-performance liquid chromatographic separation of platinum complexes containing the cis-1,2-diaminocyclohexane carrier ligand  
AU Mauldin, Stanley K.; Richard, Fred A.; Plescia, Marcus; Wyrick, Steven D.; Sancar, Aziz; Chaney, Stephen G.  
CS Sch. Med., Univ. North Carolina, Chapel Hill, NC, 27514, USA  
SO Analytical Biochemistry (1986), 157(1), 129-43  
CODEN: ANBCA2; ISSN: 0003-2697  
DT Journal  
LA English  
AB A 2-column HPLC system which can be used to sep. many likely 1,2-diaminocyclohexane (dach)-Pt biotransformation products from the parent compds. and allow their identification is described. An initial separation on a reverse-phase Partisil ODS-3 column allowed resolution of the uncharged species. The peak fractions from this column were concentrated 10-fold and reinjected onto a cation exchange Partisil 10 SCX column to allow resolution of the pos.-charged species. This system allowed resolution of 2 prototype dach-Pt drugs, (cis-1,2-diaminocyclohexane)dichloroplatinum(II) [61848-70-2] and (cis-1,2-diaminocyclohexane)malonatoplatinum(II) [61848-63-3], the aquated species likely to form from these drugs, and the complexes formed when these compds. react with glutathione, metallothionein, and amino acids. By using cation-exchange chromatog. at pH 2.3 as well as pH 4 and by using <sup>14</sup>C-labeled amino acids to determine stoichiometry, it was also possible to determine the most likely structures for some of the amino acid complexes. Most importantly, this system allowed clear separation of many of the likely biotransformation products tested from the biol. important aquated species. This system should prove useful for separating and identifying the biotransformation products of dach-Pt drugs in blood and urine, in tissue culture media, and inside the cell.

L7 ANSWER 83 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1985:626308 CAPLUS  
DN 103:226308  
OREF 103:36285a,36288a  
TI The synthesis and antitumor properties of a series of water soluble carboxylato(1,2-diaminocyclohexane)platinum(II) complexes  
AU Khokhar, Abdul R.; Krakoff, Irwin H.; Hacker, Miles P.; McCormack, John J.  
CS Tumor Inst., M. D. Anderson Hosp., Houston, TX, 77030, USA  
SO Inorganica Chimica Acta (1985), 108(1), 63-6  
CODEN: ICHAA3; ISSN: 0020-1693  
DT Journal  
LA English  
AB Water soluble Pt(RCO<sub>2</sub>)<sub>2</sub>L (L = 1,2-diaminocyclohexane; R = cyclo-C<sub>n</sub>H<sub>2n-1</sub> (n = 3-6), cyclopenten-1-yl, cyclohexen-1-yl, cyclopentylmethyl, cycloheptylmethyl) and PtL<sub>1</sub>L (H<sub>2</sub>L<sub>1</sub> = 1,1-cyclopropanedicarboxylic acid, 1,1-cyclohexanediacetic acid) were prepared and their mode of coordination characterized by elemental anal. and IR spectra. Preliminary in vitro and in vivo screening tests for antitumor activity of these complexes against L1210 murine leukemia were performed. The results indicate that this class of complexes has good in vivo efficacy that can be greatly increased by multiple drug administration.

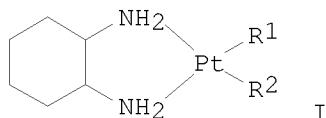
L7 ANSWER 84 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1985:547156 CAPLUS  
 DN 103:147156  
 OREF 103:23503a,23506a  
 TI Cytostatic platinum complexes  
 IN Kidani, Yoshinori; Noji, Masahide  
 PA Japan  
 SO Eur. Pat. Appl., 33 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 136012	A1	19850403	EP 1984-305304	19840803 <--
	EP 136012	B1	19890419		
	R: DE, FR, GB				
	JP 60034982	A	19850222	JP 1983-143405	19830805 <--
	JP 04079353	B	19921215		
	JP 60097991	A	19850531	JP 1983-206215	19831102 <--
PRAI	JP 1983-143405	A	19830805		
	JP 1983-206215	A	19831102		
OS	MARPAT 103:147156				
GI					



AB Cytostatic 1,2-diaminocyclohexaneplatinum (II) complexes I (R1 or R2 = NO<sub>3</sub><sup>-</sup>; R1 and R2 = MO<sub>2</sub>(CH<sub>2</sub>OH)<sub>2</sub>CO<sub>2</sub><sup>-</sup>; R<sub>1</sub>R<sub>2</sub> = -O<sub>2</sub>C(CHOH)4CO<sub>2</sub><sup>-</sup>, etc.; M = alkali metal; the diaminocyclohexane cis- or trans) prepared by treating for example dinitrato(1-trans-1,2-diaminocyclohexane) platinum(II) [66900-68-3] with the appropriate acid, may be formulated for oral, parenteral, topical, or rectal administration. Thus, the nitratoplatinum 1.5 g was dissolved by heating in H<sub>2</sub>O (10 mL), cooled to room temperature and the solution formed was added to mucic acid 0.75 g suspended in H<sub>2</sub>O (10 mL) and 5% NaOH. The 2 solns. were mixed, the mixture (pH 4) allowed to stand at room temperature for 4 days, resulted in the formation of a precipitate which was dried at 50-60° to give 1.03 g (1-trans-1,2-cyclohexanediamine)platinum(II) mucate (I; R<sub>1</sub>R<sub>2</sub> = C<sub>3</sub>H<sub>8</sub>O<sub>8</sub>) [97335-99-4]. The cytostatic activity was demonstrated.

L7 ANSWER 85 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1985:473360 CAPLUS

DN 103:73360

OREF 103:11799a,11802a

TI 1,2-Diaminocyclohexane-platinum(II) complex

PA Kitani, Yoshitoku, Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

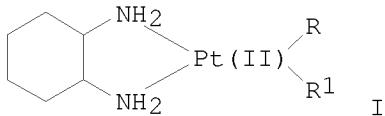
LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60034982	A	19850222	JP 1983-143405	19830805 <--
	JP 04079353	B	19921215		

EP 136012	A1	19850403	EP 1984-305304	19840803 <--
EP 136012	B1	19890419		
R: DE, FR, GB				
US 4710577	A	19871201	US 1984-637463	19840803 <--
PRAI JP 1983-143405	A	19830805		
JP 1983-206215	A	19831102		

GI



AB Twelve title Pt(II) complexes [I; R, R1 = NO<sub>3</sub>, MO<sub>2</sub>C(CHOH)<sub>2</sub>CO<sub>2</sub><sup>-</sup> where M = alkali metal, tetraacetyl- $\alpha$ -D-glucuronato; RR1 = -O<sub>2</sub>C(CHOH)<sub>n</sub>CO<sub>2</sub><sup>-</sup> where n = 2, 4; -O<sub>2</sub>C(CH<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub><sup>-</sup>, 2,2'-biphenyldicarboxylate, -O<sub>2</sub>C(CHPh)CHPhCO<sub>2</sub><sup>-</sup>, -O<sub>2</sub>CCOCO<sub>2</sub><sup>-</sup>, -O<sub>2</sub>C(CHOAc)<sub>2</sub>CO<sub>2</sub><sup>-</sup>] in cis or trans configuration were prepared. They were effective antitumors at 3.12-100 mg/kg in mice. Thus, 3.5 mmol mucic acid was added to a solution of 3.5 mmol trans-I (R = R1 = NO<sub>3</sub>) in H<sub>2</sub>O followed by 5% NaOH to pH 4, and kept at room temperature to give 85% trans-I [RR1 = -O<sub>2</sub>C(CHOH)<sub>2</sub>CO<sub>2</sub><sup>-</sup>].

L7 ANSWER 86 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1985:400620 CAPLUS

DN 103:620

OREF 103:119a,122a

TI Diaminocyclohexaneplatinum complexes, and pharmaceutical compositions containing them

IN Brown, Davis B.; Khokhar, Abdul R.; Hacker, Miles P.; McCommack, John J.

PA Research Corp., USA

SO Eur. Pat. Appl., 65 pp.

CODEN: EPXXDW

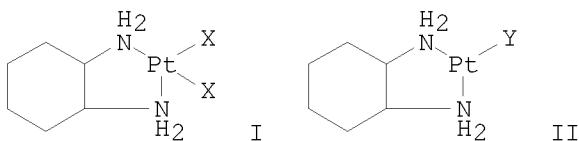
DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 130482	A1	19850109	EP 1984-107104	19840620 <--
	EP 130482	B1	19881228		
	R: BE, CH, DE, FR, GB, IT, LI, LU, NL				
	DK 8403016	A	19841221	DK 1984-3016	19840620 <--
	JP 60013795	A	19850124	JP 1984-128388	19840620 <--
	US 4758588	A	19880719	US 1987-15643	19870217 <--
PRAI	US 1983-505965	A	19830620		
	CA 1984-456842	A	19840618		
	DK 1984-3016	A	19840620		
	EP 1984-107104	A	19840620		
	GR 1984-75062	A	19840620		
	IE 1984-1545	A	19840620		
	JP 1984-128388	A	19840620		
	US 1984-636522	A2	19840801		
	US 1985-723107	A3	19850415		

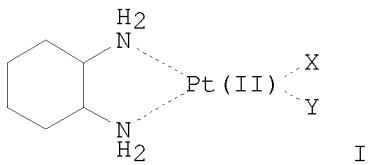
GI



AB The title compds. I (X = monovalent anion such as ascorbate, isoascorbate, shikimate, proline cyclopentanecarboxylate, etc.) and II (Y = divalent anion such as iminodiacetate, furandicarboxylate, N-methyliminodiacetate, etc.) prepared by the reaction of a water-soluble haloplatinate(II) in an aqueous medium with diaminocyclohexane (DACH) to a dihalo(DACH)-Pt(II), reaction of this product with a soluble sulfate salt in an aqueous medium to the sulfato(DACH)Pt(II), and reaction of this compound with a soluble salt of X or Y, are useful for antitumor pharmaceuticals. Thus, cis-dishikimatodiaminocyclohexaneplatinum(II) (I; X = shikimate monovalent anion) [96322-25-7] prepared by the reaction of sulfatodiaminocyclohexaneplatinum(II) [62011-40-9] with Ba shikimate, administered at 100 mg/kg (i.p.) .apprx.24 h to mice after inoculation with L1210 cells, showed 30 days survival after inoculation in 2 of 6 animals.

L7 ANSWER 87 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1984:577510 CAPLUS  
 DN 101:177510  
 OREF 101:26781a,26784a  
 TI Cis-1,2-Diaminocyclohexane platinum complexes  
 PA Fabrica de Productos Quimicos y Farmaceuticos Abello S. A., Spain  
 SO Belg., 16 pp.  
 CODEN: BEXXAL  
 DT Patent  
 LA French  
 FAN.CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI BE 898614	A1	19840502	BE 1984-212161	19840105 <--
PRAI BE 1984-212161		19840105		
GI				



AB cis-1,2-Diaminocyclohexane platinum (II) complexes (I, X and Y = sulfates, sulfonates, nitrates, carboxylates, etc.) are prepared for use as neoplasm inhibitors. Cis-dichloro-1,2-diaminocyclohexane platinum [52691-24-4] was treated with AgNO<sub>3</sub> and the resulting dinitrate complex [81473-15-6] obtained was further treated with 3-bromopyruvic acid [1113-59-3] to yield cis-bis(3-bromopyruvato)-1,2-diaminocyclohexaneplatinum [92389-55-4]. The yield was 70%.

L7 ANSWER 88 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1984:16715 CAPLUS

DN 100:16715  
 OREF 100:2539a, 2542a  
 TI Synthesis of new platinum(II) complexes with o-phenylenediamine,  
 o-aminophenol, ethanolamine and oxygen-donor ligands  
 AU Syamal, Arun; Gupta, Bhubnesh K.  
 CS Dep. Appl. Sci. Hum., Kurukshetra Univ., Kurukshetra, 132119, India  
 SO Transition Metal Chemistry (Dordrecht, Netherlands) (1983),  
 8(5), 280-2  
 CODEN: TMCHDN; ISSN: 0340-4285  
 DT Journal  
 LA English  
 AB [PtLL1] ( $L = o-(H_2N)_2C_6H_4$ ,  $o-H_2NC_6H_4OH$ ,  $H_2NCH_2CH_2OH$ ,  $H_2L1 = H_2C_2O_4$ ,  
 malonic acid, Me malonate, Et malonate) and [PtLL2] ( $HL2 = HCO_2H$ , HOAc,  
 glycine, crotonic acid) were prepared and characterized by elemental anal.,  
 elec. conductivity, magnetic susceptibility, and IR and electronic spectral  
 methods. The complexes are nonelectrolytes, diamagnetic and square  
 planar.

L7 ANSWER 89 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1983:539296 CAPLUS  
 DN 99:139296

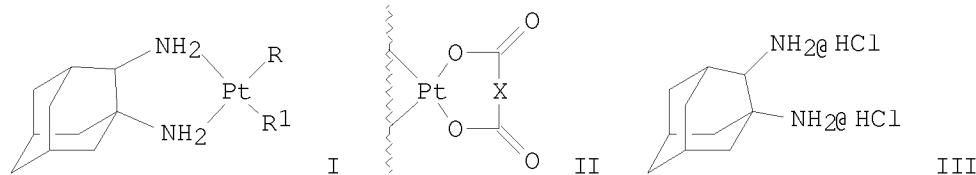
OREF 99:21397a, 21400a  
 TI Adamantane platinum complexes SEC: 23  
 PA Shionogi and Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 58079994	A	19830513	JP 1981-178540	19811106 <--
PRAI JP 1981-178540		19811106		

GI



AB I [ $R, R1 = \text{halo, } NO_3, OH, SO_4, O_2C(CmC_2mOm-1)-OH, -CHO$  where  $m = 1-6$ ] and  
 II ( $X = \text{bond, } CHR_2$  where  $R2 = H, OH, \text{alkyl}$ ) were prepared and data for their  
 antitumor activity given in mice and humans. Thus, stirring a mixture of  
 730 mg III, 1270 mg  $K_2PtCl_4$ , and 504 mg  $NaHCO_3$  in 20 mL  $H_2O$  at room temperature  
 for 3 days gave 1250 mg I ( $R = R1 = Cl$ ).

L7 ANSWER 90 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1983:400530 CAPLUS  
 DN 99:530

OREF 99:115a, 118a  
 TI Complexes of square planar platinum(II) compounds and N-methylglucamine  
 IN Turkevich, John; Burchenal, Joseph H.  
 PA Research Corp., USA  
 SO U.S., 9 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4376782 CA 1177071	A A1	19830315 19841030	US 1980-151976 CA 1981-383570	19800521 <-- 19810810 <--
PRAI	US 1980-151976		19800521		
OS	MARPAT 99:530				
AB	Complexes or salts of square planar Pt(II) compds. with N-methylglucamine (NMG), prepared by solubilizing a Pt(II) compound with NMG in an aqueous medium, are effective antitumor agents. Thus, heating 100 mg cis-malonato-1,2-diaminocyclohexaneplatinum(II) with 200 mg NMG in 25 mL H <sub>2</sub> O at 50° for 4-8 h with frequent stirring increased the solubility of the Pt compound >40-fold and increased its therapeutic effectiveness 10-fold in leukemic mice, with no apparent change in therapeutic index. Maximal activity was noted with a Pt/NMG mole ratio of 1:2.				

L7 ANSWER 91 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1982:444322 CAPLUS  
 DN 97:44322  
 OREF 97:7435a,7438a  
 TI Salts of 2-hydroxymalonate platinum complexes  
 IN Kaplan, Murray A.; Granatek, Alphonse P.  
 PA Bristol-Myers Co., USA  
 SO U.S., 13 pp. Cont.-in-part of U.S. Ser. No. 172,805, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English

## FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4322362 AU 538863 ZA 8103467 EP 41644 EP 41644 EP 41644	A B2 A A2 A3 B1	19820330 19840830 19820929 19811216 19820203 19840912	US 1981-227324 AU 1981-70588 ZA 1981-3467 EP 1981-104020	19810122 <-- 19810514 <-- 19810522 <-- 19810525 <-- 19810525 <--
	R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE AT 9353 JP 57011991 JP 01007999 CA 1173452	T A B A1	19840915 19820121 19890210 19840828	AT 1981-104020 JP 1981-78769 CA 1981-378325	19810525 <-- 19810526 <-- 19810526 <--
PRAI	US 1980-153117 US 1980-172805 US 1981-227324 EP 1981-104020	A2 A2 A A	19800527 19800728 19810122 19810525		
AB	Water-soluble salts of 2-hydroxymalonatodiammineplatinum(II) (I) [52260-82-9], 2-hydroxymalonato(1,2-diaminocyclohexane)platinum(II) [61593-73-5] and 2-hydroxymalonato(1,1-diaminomethylcyclohexane)platinum(II) [82313-89-1] are used in i.v. dosage forms for treating mammalian tumors. The water solubility of these salts permit them to be administered by i.v. as well as other routes. Thus, an aqueous solution of I was treated with NH <sub>4</sub> OH in the dark at 22° for 24 h and a pH 10.7 solution was obtained. The solution was filtered and lyophilized to yield I ammonium salt (II) [82313-95-9]. The antileukemic activity of II was demonstrated on L 1210 cells following i.p. administration. The salt was comparable to I in terms of its potency and antileukemic activity and the maximum T/C was 164%.				

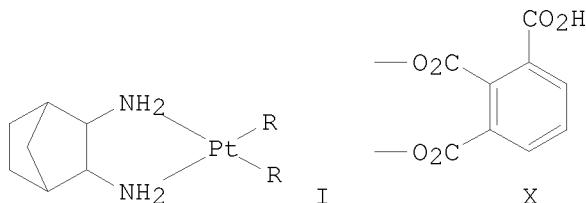
L7 ANSWER 92 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1982:162946 CAPLUS  
 DN 96:162946

OREF 96:26834h,26835a  
 TI Organoplatinum complexes with antitumor activity  
 IN Totani, Tetsushi; Yamaguchi, Kenji  
 PA Shionogi and Co., Ltd. , Japan  
 SO Fr. Demande, 19 pp.  
 CODEN: FRXXBL

DT Patent  
 LA French

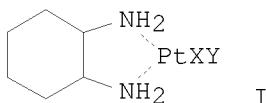
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2481696	A1	19811106	FR 1981-7932	19810421 <--
	JP 56154493	A	19811130	JP 1980-58359	19800430 <--
	US 4359425	A	19821116	US 1981-249455	19810331 <--
	GB 2074567	A	19811104	GB 1981-10578	19810403 <--
	DE 3117216	A1	19820304	DE 1981-3117216	19810430 <--
PRAI	JP 1980-58359	A	19800430		
OS	MARPAT 96:162946				
GI					



AB Diamine complexes I (R = halide, nitrate, sulfonato, monocarboxylato, sulfato, dicarboxylato) were prepared from (*exo,cis*-2,3-diaminobicyclo[2.2.1]heptane diacetate and K2PtCl4 to give I (R = Cl) (II), followed by treatment of II or I (R = NO3) with the appropriate reagents. In this way were prepared I (R = O2CCH2Cl, O2CCH2OH, D-glucuronato; RR = OSO3, O2CCH2CO2, O2CCO2, X). Several I showed powerful activity against leukemia in mice.

L7	ANSWER 93 OF 101 CAPLUS	COPYRIGHT 2008 ACS on STN			
AN	1980:461773	CAPLUS			
DN	93:61773				
OREF	93:9943a,9946a				
TI	1,2-Diaminocyclohexane platinum(II) complexes having antineoplastic activity				
IN	Gale, Glen R.; Meischen, Sandra J.				
PA	United States Dept. of Health, Education, and Welfare, USA				
SO	U. S. Pat. Appl., 28 pp. Avail. NTIS.				
	CODEN: XAXXAV				
DT	Patent				
LA	English				
FAN.CNT	1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 50554	A0	19800328	US 1979-50554	19790720 <--
PRAI	US 1979-50554		19790720		
GI					



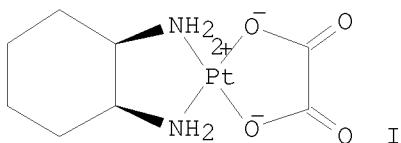
AB Platinum complexes I [X = ONO<sub>2</sub>, Y = ONO<sub>2</sub> or OH; X = OSO<sub>3</sub>H, Y = OH; or XY = O<sub>2</sub>CCH(OR)CO<sub>2</sub>, R = H or OH] are antitumor agents with sufficient water solubility for use in aqueous i.v. fluids. For example, sulfato(1,2-diaminocyclohexane)platinum(II) [64363-09-3] was prepared by reaction of 1.0 g dichloro(1,2-diaminocyclohexane)platinum(II) [52691-24-4] with 0.81 g Ag<sub>2</sub>SO<sub>4</sub> in water at room temperature. This compound had a water solubility >15.0 mg/mL and produced an increase in life span of 285% in mice which were injected i.p. with L1210 leukemia cells and then administered the compound (3.33 mg/kg i.p. on the 1st, 5th, and 9th days following tumor implantation), compared to control tumor-bearing mice.

L7 ANSWER 94 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1979:103501 CAPLUS  
 DN 90:103501  
 OREF 90:16339a,16342a  
 TI 1,2-Diaminocyclohexane platinum(II) complexes having antineoplastic activity  
 IN Gale, Glen Roy; Meischen, Sandra Jan  
 PA United States Dept. of Health, Education, and Welfare, USA  
 SO U. S. Pat. Appl., 28 pp. Avail. NTIS.  
 CODEN: XAXXAV  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 855910	A0	19780707	US 1977-855910	19771129 <--
	US 4175133	A	19791120		
	US 719689	A0	19760902	US 1976-719689	19760902 <--
	US 4115418	A	19780919		
	US 769888	A0	19770218	US 1977-769888	19770218 <--
PRAI	US 1976-719689	A3	19760902		
	US 1977-769888	A1	19770218		

AB Dichloro[1,2-cyclohexanediamine]platinum (I) was prepared by treating K<sub>2</sub>PtCl<sub>4</sub> with 1,2-cyclohexanediamine and was treated with AgNO<sub>3</sub> to give [1,2-C<sub>6</sub>H<sub>10</sub>(NH<sub>2</sub>)<sub>2</sub>]PtX<sub>2</sub> (II, X = ONO<sub>2</sub>), which was treated with other ligands to give II [X<sub>2</sub> = CH<sub>2</sub>(CO<sub>2</sub>)<sub>2</sub>; HOCH<sub>2</sub>(CO<sub>2</sub>)<sub>2</sub>; SO<sub>4</sub>; HO, ONO<sub>2</sub>]. Both I and II were effective in the treatment of L1210 leukemia, and the effect was synergistic in combination with cyclophosphamide and Yoshi 864.

L7 ANSWER 95 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1978:608921 CAPLUS  
 DN 89:208921  
 OREF 89:32323a,32326a  
 TI Antitumor activity of 1,2-diaminocyclohexaneplatinum complexes against Sarcoma-180 ascites form  
 AU Kidani, Yoshinori; Inagaki, Kenji; Iigo, Masaaki; Hoshi, Akio; Kuretani, Kazuo  
 CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, Japan  
 SO Journal of Medicinal Chemistry (1978), 21(12), 1315-18  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DT Journal  
 LA English



AB The antitumor activity of the cis, trans-d, and trans-l title compds. was evaluated using Sarcoma-180 ascites in ddN mice. The antitumor activity varied with the conformation of their nonleaving groups. The highest therapeutic index was shown by oxalato(cis-1,2-diaminocyclohexane)platinum (I) [61913-68-6]. The cis complexes were more effective than the trans ones. LD values are given and structure-ability relationships are discussed.

L7 ANSWER 96 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1978:436817 CAPLUS

DN 89:36817

OREF 89:5599a, 5602a

TI Antitumor activity of platinum complexes of 1,2-diaminocyclohexane isomers

AU Speer, Robert J.; Hall, Larry M.; Stewart, David P.; Ridgway, Helen J.; Hill, Joseph M.; Kidani, Yoshinori; Inagaki, Kenji; Noji, Masahide; Tsukagoshi, Shigeru

CS Dep. Chem., Wadley Inst. Mol. Med., Dallas, TX, USA

SO Journal of Clinical Hematology and Oncology (1978), 8(2), 44-50  
CODEN: JCHODP; ISSN: 0162-9360

DT Journal

LA English

AB Platinum complexes of 1,2-diaminocyclohexane were synthesized and tested as antileukemic agents against L1210 in mice. In most cases the (-)-trans-1,2-diaminocyclohexane complex was the most effective.

L7 ANSWER 97 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1978:45040 CAPLUS

DN 88:45040

OREF 88:7033a, 7036a

TI Analogs of dichloro o-phenylenediamineplatinum(II): synthesis and antitumor testing

AU Hall, Larry M.; Speer, Robert J.; Ridgway, Helen J.; Hill, Joseph M.

CS Dep. Chem., Wadley Inst. Mol. Med., Dallas, TX, USA

SO Journal of Clinical Hematology and Oncology (1977), 7(4), 877-83  
CODEN: JCHODP; ISSN: 0162-9360

DT Journal

LA English

AB A number of water soluble analogs of dichloro-o-phenylenediamine platinum(II) (DOPP) were synthesized, characterized, and tested for antitumor activity. The low activity of even the best DOPP analog seems to indicate that work in this area holds little promise. It is doubtful that these compds. will be clin. useful. The synthetic techniques may, however, be of value for future coordination synthesis.

L7 ANSWER 98 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1978:570 CAPLUS

DN 88:570

OREF 88:119a, 122a

TI 1,2-Diaminocyclohexaneplatinum(II) complexes having antineoplastic activity

IN Gale, Glen Roy; Meischen, Sandra Jan

PA United States Dept. of Health, Education, and Welfare, USA  
SO U. S. Pat. Appl., 28 pp. Avail. NTIS.  
CODEN: XAXXAV

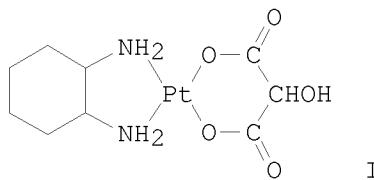
DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 769888	A0	19770218	US 1977-769888	19770218 <--
	US 855910	A0	19780707	US 1977-855910	19771129 <--
	US 4175133	A	19791120		
PRAI	US 1976-719689	A3	19760902		
	US 1977-769888	A1	19770218		

GI



I

AB Organoplatinum complexes effective as antitumor agents and having sufficient water-solubility for use in aqueous i.v. fluids were prepared. The organoplatinum complexes included malonato(1,2-diaminocyclohexane)platinum(II) (I) [52351-07-2], hydroxymalonato(1,2-diaminocyclohexane)platinum(II) [61593-73-5], dinitrato(1,2-diaminocyclohexane)platinum(II) [60732-70-9], sulfato(1,2-diaminocyclohexane)platinum(II) [64363-09-3], and hydroxonitrato(1,2-diaminocyclohexane)platinum(II) [64218-34-4]. The % ILS values resulting from treatment with I were considerably higher than those obtained by treatment with the dichloro complex. I exhibited a synergistic effect in combination chemotherapy with cyclophosphamide, but merely an additive effect with Yoshi-864.

L7 ANSWER 99 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1977:577979 CAPLUS

DN 87:177979

OREF 87:28067a,28070a

TI 1,2-Diaminocyclohexane platinum(II) complexes having antineoplastic activity

IN Gale, Glen Roy; Meischen, Sandra Jan

PA United States Dept. of Health, Education, and Welfare, USA

SO U. S. Pat. Appl., 28 pp. Avail. NTIS.

CODEN: XAXXAV

DT Patent

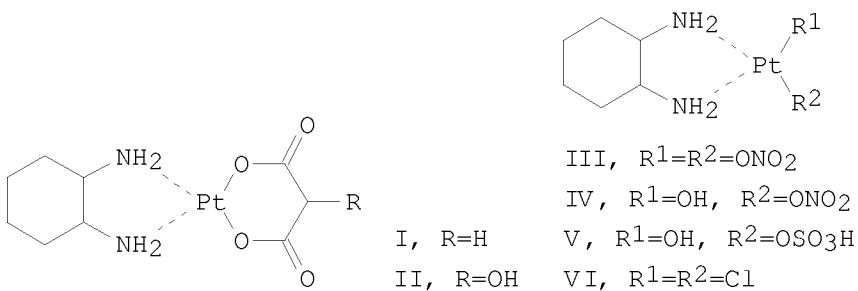
LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 719689	A0	19760902	US 1976-719689	19760902 <--
	US 4115418	A	19780919		
	US 855910	A0	19780707	US 1977-855910	19771129 <--
	US 4175133	A	19791120		
PRAI	US 1976-719689	A3	19760902		
	US 1977-769888	A1	19770218		

OS MARPAT 87:177979

GI



AB Malonato- (I) [52351-07-2], hydroxymalonato- (II) [61593-73-5], dinitrato- (III) [60732-70-9], hydroxonitrito- (IV) [64218-34-4], and sulfato(1,2-diaminocyclohexane)platinum(II) (V) [64363-09-3], prepared from dichloro(1,2-diaminocyclohexane)platinum(II) (VI) [52691-24-4], were more effective than VI in the treatment of L1210 leukemia in mice, both alone and in combination with cyclophosphamide [50-18-0] or Yoshi 864 [3458-22-8]. I-V were more water soluble than VI (e.g. IV was 300 times as soluble as VI), with sufficient water solubility for aqueous i.v. administration.

L7 ANSWER 100 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1977:400298 CAPLUS

DN 87:298

OREF 87:55a,58a

TI Synthesis and anti-tumor activities of platinum(II) complexes of 1,2-diaminocyclohexane isomers and their related derivatives

AU Kidani, Y.; Inagaki, K.; Saito, R.; Tsukagoshi, S.

CS Nagoya City Univ., Nagoya, Japan

SO Journal of Clinical Hematology and Oncology (1977), 7(1), 197-209

CODEN: JCHODP; ISSN: 0162-9360

DT Journal

LA English

AB Pt(II) complexes with cis- [1436-59-5], d-trans [21436-03-3], and l-trans-1,2-diaminocyclohexane [20439-47-8] were prepared and tested for antitumor activity. The Pt(II) complexes included the Cl, oxalate, malonate, and methylmalonate salts and the uracil complexes. The l-trans-1,2-diaminocyclohexane complexes showed the greatest neoplasm inhibiting activity. In contrast, complexes of Cu and Ni with 1,2-diaminocyclohexane were inactive. The conformational difference observed in this study may give very important information in the study of the mechanism of Pt complexes.

L7 ANSWER 101 OF 101 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 1977:65342 CAPLUS

DN 86:65342

OREF 86:10317a,10320a

TI Antileukemic properties of organoplatinum complexes

AU Meischen, Sandra J.; Gale, Glen R.; Lake, Lanny M.; Frangakis, Crist J.; Rosenblum, Michael G.; Walker, Ernest M., Jr.; Atkins, Loretta M.; Smith, Alayne B.

CS VA Hosp., Charleston, SC, USA

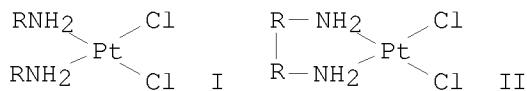
SO Journal of the National Cancer Institute (1940-1978) (1976), 57(4), 841-5

CODEN: JNCIAM; ISSN: 0027-8874

DT Journal

LA English

GI



AB The antitumor activity of 46 cis-amineplatinum congeners I and II was evaluated against L1210 leukemia in mice. Several compds. in this series significantly prolonged the life-spans of mice with the leukemia. The compound that yielded optimal activity dichloro(1,2-diaminocyclohexane)platinum [52691-24-4], was substituted with various organic and inorg. anions. The aqueous solubility was greatly increased with retention of significant antileukemic activity. Most of the active compds. were synergistic with cyclophosphamide [50-18-0], and cure rates up to 80% were obtained with certain combinations. The preparation of the complexes is described and structure activity relationships are discussed.

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